The American Journal of

CLINICAL MEDICINE

Dependable Therapeutic Fact for Daily Use

JULY MCMXV

THIS NUMBER OF CLINICAL MEDICINE contains many exceptionally valuable articles. Among others you will be interested in—

"An Old Doctor's Life Story"	*By Doctor Gray*
"Letters of Doctor Leonidas Playfair"	*By Doctor Leuf*
"Anemonin: The Active Principle of Pulsatilla"	*By Doctor Redfield*
"A Problem in Indigestion"	*By Doctor Waugh*
"Unshackling the Insane"	*By Doctor Bowers*
"The Wax-Man Affair"	*By Doctor Williams*
"The Basis of Cancer Treatment"	*By Doctor Perdue*
"Vulvovaginitis in Little Girls"	*By Doctor Robinson*
"The Physicians' Microscope"	*By Doctor Uhler*
"A Story of Head-Hunting in the Philippines"	*By Doctor Moss*

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What Man Craves

THE Harrison antinarcotic law is making quite a stir among users of drugs, and many curious tales are being told of the habitues and their doings. As it grows increasingly difficult to obtain their "dope," the police stations and hospitals are besieged by unfortunates seeking relief. Their vagaries are attracting general attention, and more interest is being taken in drug habits, and the victims thereof, than ever before. We may well pause to inquire, why these habituations persist?

All the world makes use of the caffeine-bearing plants in the form of hot drinks. It is notable that every such plant as yet discovered has been utilized in just this manner, and no other plant has been thus used. So the Chinese employs the leaves of the tea plant, the Arabian the coffee berry, the West African the kola, the Mexican the berry of the cacao, the Brazilian an extract from guarana, and the Paraguayan the leaves and twigs from the maté. Only one other plant is known to contain caffeine, the American holly; but it also develops an emetic principle, so that while the Virginian Indians utilized it as a medicine they could not make of it a beverage.

All male mankind uses tobacco; and wherever the women form this habit, they are as prone to it as are their menfolk. The southern men smoke and chew, while their women dip snuff. The love of tobacco is innate, and does not have to be acquired. When the Dutch brought tobacco to the Cape of Good Hope, the Hottentots, who had never known the weed previously, were so enamored of it that they traded their herds and flocks for it, although thereby they incurred the risk of starvation. Every race and people, savage and civilized, uses tobacco.

Who can compute the billions of money spent every year for alcohol? Brandy, whisky, gin, rum, wines, beers, and the liquors native to various sections, go to make up a total that is appalling in its cost, in money and in humanity. While temperance is growing, the consumption of alcohol per capita does not seem to decrease.

Many millions of people in Asia and Africa use opium. Other millions partake of cannabis, while the Mexican peon stupefies himself with mescal, and the Peruvian solaces his weary limbs with coca.

What is it in these drugs that makes them so avidly craved by man? They are uni-

versally spoken of as "stimulants," but is it really stimulation that they afford, and is it this quality that makes them desirable?

Miladi returns from a day's shopping, tired, irritated, her face drawn and contracted, worried by various unpleasant little occurrences and disappointments. The maid, a skilled therapeutist, with limitations, fetches a cup of steaming-hot tea. The lady sips it, her vessels relax and distend, a grateful warmth pervades her body, the vascular and mental tension gives way, and a sense of comfort and restfulness steals over her. The worries seem to lose importance, the disappointments fade, and don't appear to matter; shortly she resumes her animation and is laughing over the humorous side of her day's experiences.

The immediate effects of cocaine are almost exactly identical with the preceding; no user has ever been able to describe other effects than those closely similar to what are produced by tea or coffee. The ulterior action, in inducing moral degeneration, is not perceptible to the victim.

In many respects the action of alcohol is also similar: it fills the blood-vessels and relaxes their caliber; warms the body by opening the capillaries to the influx of blood; and exerts a relaxant influence over the frame and the mental faculties, which are progressively paralyzed. Many drinkers say that they like to drink until they feel comfortably full, and then they take enough to keep up this sensation. The cerebral hyperemia induced may occasion mental excitement, or even delirium, ending, with repeated potations, in complete paralysis of consciousness, and in muscular relaxation.

Opium users may take enough of the drug to remove the sense of fatigue, so they can work long after they should have stopped for rest. Or, they may indulge in just enough to induce mental and physical relaxation, a sense of "comfort," the abolition of worry and uneasiness, and the production of an emotional quiet, a restful realization that "nothing really matters."

Cannabis and mescal induce peculiar deliria, the one erotic, the other a color display; but these are incidental, and the one distinguishing feature of all habit drugs is present, that of *relaxation*.

It has long been recognized that what we usually call stimulation is not that at all, and that our so-called stimulants are in reality sedatives. Alcohol is from first to last a paralyzer, its apparent increase of power being release from salutary restraint. The man who is tired or worried takes a drink. The opium habitue who is irritated takes an extra dose. The merchant whose business is in so bad shape that he can see naught but failure ahead, fills his pipe, and, as he inhales the nicotic smoke, his worries leave him and he grows tranquil. From the cup of tea to the brandy bottle and the hypodermic dose of morphine, there is merely a gradation; the object and the effect are the same in all.

Relaxation, physical, vascular, mental, moral; relief from worry, from fatigue, from strain, from duty, from obligation—this is the one great boon that men demand, and they seek it from any and all sources. Little wonder that death should lose his terrors; for in the grave all human ills cease, and the rest is complete. A London cabman stood by while a lady surveyed an individual lying on the walk, dead drunk. The lady said: "Poor fellow; he is sick!"

The cabman replied: "What would I give to be half as sick!"

Is the absolute abolition of consciousness such a boon? Why, then, should we not welcome death, which is merely a permanent unconsciousness? Have the poets who celebrate death stumbled upon a great truth? Here is a little verse from the country Frisian, translated by the Countess of Blessington:

What art thou, Life?
  A weary strife,
Of pain, care and sorrow.
  Long hours of grief,
With joys how brief,
  That vanish on the morrow.

Death, what art thou
  To whom all bow,
The sceptered king and slave?
  The last, best friend,
Our cares to end,
  Thy empire is the grave.

The need and the desire for relaxation are innate. The bow must be unstrung when not in use. The athlete must go off training at the proper time. Physical strain, mental strain, moral strain, all demand periods of relaxation to follow. The moral tension of the Commonwealth was followed by the debauchery of the court of Charles II. The schoolboy's yell when released from study is the expression of this requirement of his nature. The knowledge that the week's saturnalia of the carnival is coming, helps many a one to keep straight, and straitlaced, until the season for relaxation and gayety dawns.

Somewhere, I picked up a tale of three venerable cardinals, who were accustomed

at intervals to get together, lock the doors, and curse for an hour, until nature was relieved from the strain of saintliness too long continued at high tension. How many a wild orgy would be avoided, were the unfortunate individual to take a week's fishing, instead. When relaxation comes to be recognized as a right and unavoidable attribute of humanity, when it is prescribed when and as needed, not considered immoral but natural, we shall see less wickedness, and fewer nervous breakdowns among the men of affairs.

All this is of especial importance, now that prohibition is spreading, and the tendency to use alcohol is frowned down in polite society. In the days when Sterne and Smollett wrote their romances, it was considered unworthy of a "gentleman" to go to bed sober. The four-bottle man looked with contempt on the gill-sipper. Read those works, and realize how far we have climbed. But as we shut out the older methods of securing relaxation, let us be careful to provide others as effective, although innocent.

God sends his teachers into every age,
To every clime, and every race of men,
With revelations fitted to their growth
And shape of mind, nor gives the realm of Truth
Into the selfish rule of one sole race.

—James Russell Lowell.

CONTRACTUAL HEALTH INSURANCE

The world moves slowly, but it never stops. The moment we feel that we have reached a secure stopping place, when we have completed our work and are ready to sit down, somebody behind us is stepping upon our heels. We put in years and years developing the alkaloidal therapeutics, and just as our rich results are formulated and systematized come the serums and vaccines, with their brilliant successes and illimitable possibilities. Our work is sound and our conclusions are true; the results of our efforts will endure and form an integral part of the grand structure developing into the therapy of the future. However, they form only a part of it. What we fondly hoped would constitute the great central dome turns out to be but one of a group, and may, eventually, prove to be but a subsidiary edifice, a wing or an L of the majestic structure.

The basis of medicine is changing radically. The enormous advances made by surgery and the multiplication of hospitals in every town of any size threaten to destroy, in the doctor, the last vestige of independent personality, to reduce him to the position of a drummer, a solicitor for the big city men and the institutions. Here is a town of 3000 inhabitants. Of the doctors here, one sends his "cases" to a Chicago hospital; another, to a Cincinnati surgeon; a third, to the hospital at Champaign; and the fourth, to the one at Decatur. Nobody seems to think of retaining the responsibility for the patient or solving the problem himself. Every difficulty or obscurity is hurriedly seized upon as an excuse for rushing the patient off to a hospital.

"Well," comments the shrewd old layman, "the patient gets better services and more experienced doctors there; has a better chance for recovery, fewer of irreparable harm from ignorance and lack of skill."

Some truth in this, and the more shame to us. We have skied the requirements for the degree, raised the cost of medical education until only a wealthy man can afford it for his son, and, yet, we do not turn out men as well qualified to accept and fulfil the duties of a practician as were our great-grandfathers. Back in 1871, a class was graduated from old Jefferson. On his journey home, one of the new graduates got mixed up in a railway accident, and he successfully amputated a man's thigh with a pocketknife. Could this feat be expected nowadays from the men who shirk off upon a hospital every molehill difficulty?

These things and many others are pushing us along the only path open, the only right one for us to follow—the road toward accurate and early diagnosis and preventive medicine. This we must follow, or else retire from the field of medicine, altogether.

The eternally-harped-upon and exaggerated overcrowding of the profession points straight to the desirability of *fewer* patients, better work, and, in our diagnosis, more care, more thorough methods, more science. The withdrawal of patients from us and their resort to the far more expensive hospitals demand that we extend our own field, by beginning sooner, by seeking to detect disease earlier and stop its development, by studying to prevent disease and maintain our patients in health. The growing expensiveness of sickness itself tends to make it necessary to keep well—no man can afford, nowadays, to be ill, if this can be prevented; and everybody can better afford to pay the doctor to keep him well than he can to be cured.

The position to which we are being impelled is that of supervisor of our clients' habits and life in general, corrector of insani-

tary living and surroundings; and for this reason we must replace the old, wornout fee system by one more suitable to the nature of our duties.

The doctor who limits his practice to a certain number of families, does his whole duty by them, and assesses upon them, proportionately to their means, enough to afford himself an ample income will find himself in strict accord with the times now, and for the future as far as the veil may yet be lifted.

It does not follow that all men are honest because they are poor; and I have known some who were friendly and generous, although they had plenty of money. There are some landlords who do not grind down their tenants; there are actually bishops who are not hypocrites.—William Makepeace Thackeray.

THE TANGO, AND LEWDNESS

Early in the last century, the waltz was brought to England from its birthplace in Germany. Lord Byron was among those very proper Britons who were scandalized by the new dance; and he condemned it in a poem beginning:

> Muse of the many twinkling feet, whose charms
> Have now extended up from legs to arms.

That eminent moralist, however, was lame and couldn't have waltzed had he the inclination. The waist-embracing dance remained the theme of the sermonist's denunciation and the wit's ridicule for many years. N. P. Willis, the popular short-story writer just before the civil war, wrote admiringly of the heroine who "did not waltz except with husband or brother, but did not think it wrong in those (inferior beings) who considered it right."

The waltz, after reigning supreme for a century, is now obsolete. The group of new dances known collectively as the tango has replaced it in popular favor. Despite the diatribes of divines and moralists, the shafts of wit, and the sage advice of wisdom (?), the gay youth abandons himself to the seductions of hesitation, maxixe, *et id omne genus*, with an enthusiasm he never showed for geometry or syllogism, ax or saw, theodolite or crucible. Doctors wisely prescribe it, and old fatties dance to reduce their avoirdupois, oldish ladies "hesitate" to cure what ails them, boys and girls tango because they love it. Step out for a moment and return, to find the office-boy tangoing with the stenographer. While you are at lunch, the bookkeeper takes a turn with the cashier and the typewriter shows the head clerk her last new step. Greatest marvel of all—the Boy has some use for his sister, for she can practice with him.

The universal howl of disapproval has had much effect—it has directed attention to the new dancing and advertised it widely. Many a comely maid whirls deliriously in the mazes, who would have exhibited but a languid interest in it, were it not for the very pointed denunciation of the tango on moral grounds. For, as truly as "there is more joy over one repentant sinner than over the ninety-and-nine who sin not," so the accusation of bold badness has to the innocent girl more fascination than have twenty-nine Sunday schools. Innate depravity? By no means. Rather, innate curiosity. It has ever been so: the first Bacchantes were women, and every new cult characterized by wild Bacchanalian and Priapian revels has attracted its overbalancing quota of female worshipers.

Does the tango lead in this direction? Some—many—say it does. One woman writer describes it as a nature-dance, as expressing a phase of nature as old as Eve's first foregathering with Adam, as the call of sex for mate; but as such an expression of nature as the young lady's mother would not approve. That seems plain enough, but a popular evangelist goes further. He says flatly, that any man who says he can tango without arousing the sexual passions is a liar, else he is less than man. True?

Many, ah, many years ago, we, too, danced. The same thing was then said of the dances in vogue, in terms not less emphatic. We never tired floating (shut up! we were lighter then) through the dreamy mazes of the waltz, the polka, mazurka, schottische, galop, and reel; threading the intricate figures of cotillion, lancers or country-dance; or proudly conducting our fair partner adown the hall in the stately minuet. Yes, until the stars paled before the coming dawn, when we retired to sleep and dream of the dance, and awoke to count the days until the next dance was due. But never once did we experience the slightest consciousness of sexual passion; neither could we, on questioning our companions, find one in whom dancing produced any such result. The poetry of motion, the exhilaration of the swing and whirl, the zest imparted by the girl's participation, all were as innocent as was the spooning of Paul and Virginia in the sixth year of their young lives.

And, yet, we indignantly repudiate the allegation that we were or are imperfect in the full and normal development of the attributes of masculinity. One need not

be emulous of the career of the town bull, and, still, be quite satisfied that among men he is not to be looked upon as less than a fully qualified member of the lodge.

How about the new dancing? Once upon a time a greatly eminent doctor of divinity, who held down with credit a professorship in a theological seminary, was sitting in his back parlor watching his daughters and their guests. One of the girls went to the piano and played, while the others walked through the figures of a quadrille. When it was completed, the father asked his daughter what was the game they had been playing. He was told that they had been dancing! Greatly surprised, he said: "Was that dancing? Why, all my life I have been denouncing and preaching against dancing, and until now I never saw it or knew what it was. I think it was a very pretty game and entirely unobjectionable."

This came to my mind recently when I sat in a friend's parlor and watched his son and daughters tango, their parents looking on. It was a beautiful exhibition, free from the slightest trace of lewdness—because there was not a trace of lewdness in the minds of those who tangoed. Vulgarity, sensuality, obscenity could be introduced into any dance by the person in whose mind such things exist habitually. When vileness is innate, it comes out, in words or actions that bespeak nothing but purity when coming from the pure.

We very much fear that the eminent evangelist who saw so much bestiality in the tango inadvertently allowed the veil to be lifted from his own inner consciousness.

It is surely better to pardon too much than to condemn too much.—George Eliot.

A NARCOTIC-DRUG CASE

"My wife is fifty-four years of age, has borne five children, her general health is good, has used opiates for the last twenty years. She began by taking occasional doses for the relief of the nausea of pregnancy. She was becoming a wreck, until I persuaded her to quit the syringe and take laudanum, and this she took for some years. I then substituted morphine-solution, taken internally, because of being easier to control and to prevent the usual consequences. She now takes 2 grains a day, in divided doses.

"I have made several attempts to cure her, but did not succeed. Several home-treatments tried also failed. Two years ago, I began gradual reduction, extending over weeks, and this went well until the daily dose was reduced to a fraction of a grain, when withdrawal-symptoms appeared, among them insomnia; also a peculiar prickling or tingling sensation showed itself in the skin of the feet, arms, and face, which she described as the prickling of millions of needles. To relieve this paresthesia, she would stamp her feet and slap her arms and face.

"Meanwhile I cut off the drug and put her on the Lambert drops (belladonna, hyoscyamus, and xanthoxylon), giving 6 drops every hour, and increasing to 16 drops. From this course, I failed to see the slightest benefit, although I kept it up. She was put to bed and had every attention. At times the prickling made her almost frantic. To control this, I gave her codeine phosphate, 1 grain hypodermically, but this afforded only temporary relief. I also tried H-M-C, and then Lloyd's specific medicine gelsemium. I gave bromides, but the stomach rebelled. There was no abatement of the symptoms, and universal muscular soreness developed, so that she would cry out when touched. Her pulse became intermittent and very irregular, despite strychnine, 1-30 grain every four hours. At last I became so alarmed over these symptoms that I reluctantly let her have her morphine again.

"I know my management was faulty; I failed to institute the thorough purging, although I did keep the bowels open with laxatives. I know of no reason why she should not be cured, and she is anxious to get rid of the habit."

So writes a friend. The difficulty, as he rightly places it, was the failure to begin with a thorough and complete cleaning-out. Unfortunately, he took the Lambert "drops" as the essential part of that method, whereas, at the best, they merely exert some sedative influence, while the purgatives get in their work. The prickling was due to the appearance of toxins in the skin, which a free use of pilocarpine should have dissipated.

But, something more decided than purgation is requisite. Give the strong cathartic Lambert advises, and, after absolutely emptying the bowels of the retained masses sure to be present there, keep up the laxative saline; and, whenever any toxic evidences appear, give calomel in divided doses, followed by the saline and colonic flushing. Hot baths prolonged for hours aid greatly in relieving the skin of the toxins that struggle to emerge through the sudoriparous glands. Emetine may suit the case even better than pilocarpine, or as an alternant.

That pulse needed digitalin or sparteine, rather than strychnine. But, take as your motto: *Irritative symptoms denote toxemia and demand elimination.* Nevertheless, do not eliminate her vitality and let her forces fail. Keep up liquid nourishment throughout, every two hours.

To be gentle, generous, kind; to win by few words; and to disarm criticism and prejudice through the potency of a gracious presence, is a fine art. Books on etiquette will not serve the end, for studious attempt to smile at the proper time, nor zealous efforts to avoid jostling the whims of those we meet; for an attempt to please is often to antagonize.—Elbert Hubbard.

CONSTIPATION AND SURGERY—A DISCOVERY?

For, lo! these many years, we have been earnestly asking the attention of our brethren to the vast importance of the alimentary canal as a source of ailments and diseases innumerable. A certain amount of success has attended our efforts, but, in the minds of many, we were ranked as one-idea enthusiasts, men so possessed with their hobby as wildly to exaggerate the importance of the proposition. Whenever our slogan was heard —"clear out, clean up, and keep clean"—men smiled sardonically, then straightway forgot about it.

Now the position that we have held for a quarter century has received support from an unexpected quarter. The surgeons have made the momentous discovery that the bowels may be brought into their field and subjected to operative intervention. Promptly the reasons justifying such intervention appear, and the list of maladies deducible from bowel abnormalities grows apace. Not the most rabid of our own group, not even Haig at his wildest, not Bouchard or any other advocate of intestinal antiseptics furnishes so lengthy a list of complaints, so damning a bill of particulars as now does the man-with-the-knife-out. Joyfully the entire surgical tribe precipitates itself through the new opening and proceeds to carve out new kingdoms from the colonic tract and its extensions. The ovaries? Kidney waiting decapsulation? Gone, gone to join tenotomy, cutting out uterine ulcer, all the legion of fads surgical. The appendix now is but an outlying bastion of the enemy's fortifications, instead of being the citadel to be demolished; the advance has swept triumphantly over and past that long-contested salient.

When the battle is over, when the rumble of the cannon and the neigh of the warhorse are stilled, when the passions are exhausted and men grow sane, the new boundaries should be delimited about thusly:

By the use of such remedies as the anticonstipation granules, saline laxative, and mineral oil, together with the institution of proper diet and other sanitary habits, constipation may be relieved and cured. In the rare cases in which these measures do not cure, it may be safely assumed that there is present some mechanical factor that requires mechanical relief. We can not expect any drug to straighten out an intestinal kink, replace a retroverted womb, dissolve a fibrous intestinal stricture, untwist a volvulus, relax a hypertrophic anal sphincter or to spirit away obstructing bands or tumors.

By means of drugs, prescribed intelligently, we can, and do, increase the fluidity of retained fecal masses, restore peristaltic power, tone enfeebled muscular fiber, put an end to microbic proliferation and toxin formation, and so reestablish normal daily regularity of evacuation as to enable the patient to accomplish this function without artificial aid from drugs or drugless expedients. That any such condition should be held to justify the invasion of the abdominal cavity with the surgeon's 42-centimeter artillery, is preposterous.

It will be many years before this conclusion will be reached. The pendulum will sway very far toward the surgical side first, and may, possibly, sway back again; but, when it comes to a standstill, if ever it does, it will not be far from the point herein indicated.

FOURTH OF JULY WOUNDS: TETANUS

The first, indispensable, principle in the treatment of wounds inflicted by explosives—notably those occurring from Fourth of July celebrations—is to see to it that the lesion, no matter how trivial, is laid freely open, down to the very bottom. Especially is this essential in wounds upon those parts of the body which are exposed to the surrounding dirt, such as the hands and bare feet. Furthermore, when the wound is situated in a locality where the tissues are hard and the skin is tough and inelastic, so that there is a constant tendency on the part of the wound to close itself up, it is important to make the opening sufficiently large and free to forestall automatic closing; it being best to make a fairly long crucial incision, sufficient to relax completely the surrounding tissues, and it must be kept open until all danger of infection is past. All such wounds should be thoroughly swabbed and flushed with some efficient

antiseptic (of which mercury bichloride is the best example). Then covered with only the loosest kind of dressing, one that will permit the free access of air to the wound. Under no circumstances should it be sewed up or covered with adhesive plaster.

As a precautionary measure, it is advisable that every patient receive an immunizing injection of antitetanic serum, even in the apparently most trivial lesions. It is a significant fact that, of all the injuries resulting from Fourth-of-July celebrations, it is not the major, serious cases that yield the largest crop of tetanus, but the minor, seemingly unimportant ones, in which the more vigorous measures of treatment and prophylaxis are neglected.

It has been positively demonstrated over and over again, so that now it may be regarded as a certainty, that antitetanic serum, if given early—before the development of actual infection—acts as an efficient preventitive. Consequently, the physician should insist upon treating these lesions, minor as well as major, energetically from the beginning. No possible harm can result from an occasional excess of zeal, while on the other hand, many lives may thereby be saved. Every doctor should make it his business to lay in, in ample time, a plentiful supply of the serum, so as to be prepared for all emergencies.

You can't appreciate home till you've lost it, money till it's spent, your wife till she's joined a Woman's Club, not Old Glory till you see it hanging on a broomstick on the shanty of a consul in a foreign town.
—O. Henry.

PREVENTIVE VERSUS CURATIVE MEDICINE

It is one thing to realize and to proclaim the superior advantages of preventing disease wherever possible, but quite another, to belittle and repudiate the importance of curing it when developed. There is no necessary or plausible relation between the two positions; as a matter of fact, the latter position is wholly untenable and false. One might as well declare that, because it is much wiser and better to prevent men and women from going morally wrong, therefore all the agencies and efforts of the past and present for reclaiming and reforming those who have gone wrong are valueless, even harmful, since in individual cases these very measures have tended to harden the moral natures which they were intended to soften.

It is high time that some of the fallacies and misrepresentations about curative medicine that are being bandied about in the name of preventative medicine were exploded and corrected. Hygienic and sanitative science does not need any bolstering at the expense of its sister. They who know both of them best also know that the two work in cooperation and complement each other.

The very first basic element in the fallacy is, the false idea expressed in so many quarters that a wave of antagonism to medicine is sweeping over the world. That is not true. Unfortunately, there are, in the profession, some skeptics and nihilists who talk a great deal about the uselessness of drugs and who sneer at those who give them; still, the great body of practicing physicians, the men on the firing-line, who are doing the actual work of saving life and restoring health, the men whom people send for and hang upon when their loved ones are sick and in danger of dying, these men do not descant upon any antimedicine wave engulfing humanity. These men know the value of sanitation and hygiene and prophylaxis—none knows better—and it is part of their busy lives to share in the promotion of these measures.

But these same men know, too, in a far more practical way than anybody can tell them, that the problem of curing disease still confronts man just as it confronted him at the beginning of the race; so, when they are called to hasten to the bedside of someone sick and suffering, it is not with a lecture on preventive hygiene and sanitary drainage that they go armed, but with tried and proven remedies, in which both science and experience have given them faith

It is quite true that the need for taking medicines is growing steadily less, thanks to the unselfish efforts of these very men in spreading the gospel of hygiene and prevention. It is also true that the preparation and the mode of giving drugs have been greatly simplified, thanks to our better and clearer knowledge about drugs and their action. We even may go a step further and say that the field of drug-therapy is, nowadays, divided with other means of treating the sick, owing to our improved understanding of the nature of disease.

Nevertheless, all these things do not constitute a wave of antagonism to medicine or call for any contemptuous attitude toward curative therapy. Never was the medical man's faith in drugs at a higher mark than now and never was his use of them so intelligent and effective. He is demanding, and receiving, and using better and ever better preparations of drugs. He no longer is con-

tent with the old, crude, shotgun remedies; he demands the sharpshooting rifle that will hit the bull's eye and ring the bell.

Every intelligent physician realizes, of course, that the ultimate triumph of medical science lies in preventative medicine; that we shall eventually conquer disease, not by curing it, but by heading it off. And he is unselfishly doing more than anybody else to bring this about. Yet, the doctor is a practical man.

To speak of the time when preventive medicine shall have banished sickness from the earth is like talking about the time when all the coal shall have been used up and we shall derive our heat directly from the rays of the sun. Both events are far beyond the life of our present generation and probably of a goodly number of succeeding ones. And not only is this true. It is true, furthermore, that the work of the doctor, in curing and alleviating disease, will, unquestionably, play an important part in bringing about this final achievement of preventive medicine. Curative medicine still holds an indispensable place in medical science and practice.

Ah Love! Could you and I with Him conspire,
To grasp this sorry Scheme of Things entire,
Would we not shatter it to bits—and then
Remould it nearer to the Heart's Desire?
—Rubaiyat.

THE THERAPEUTICS OF HEMLOCK AND CONIINE

Ages before Socrates drank the fatal dose of hemlock, it was known that this plant contained a powerful principle capable of causing marked changes in the functioning of the human body, and even death if the amount ingested were sufficiently large. That so potent a substance should be utilized in disease-conditions, the opposite of those produced by the plant, seems an obvious conclusion. Nevertheless, after the lapse of many centuries, we find that hemlock is unknown to the body of the profession as a remedy and scarcely utilized by the most accomplished therapeutists of our day. Yet, we may say, without fear of contradiction, that the crying need of the medical profession today is for effective remedies with which to oppose the pathologic conditions recognizable by virtue of our advances in diagnosis.

Doubtless the great Athenian drank a decoction made from the fresh plant. Few of us could obtain such a preparation, even were our patients willing to partake of the draught; its nauseous taste and the difficulty of retaining it on the stomach would suffice to condemn it. Such a mess could not be accepted by modern medicine, the peril of using so uncertain a preparation of such a powerful an agency alone condemning it. The official galenic forms are worse. In days of yore, we employed the extract, the same as we did that of taraxacum, as an inert excipient for pill-masses; the tincture we used as a means of wetting the massive doses of lupulin administered to the inmates of insane asylums.

Succus conii had some vogue, but finally was dropped, as uncertain, prone to decomposition, changing in strength from day to day. And thus a most valuable remedy fell into disuse and oblivion, until the day when the alkaloidists rescued it and, as coniine, presented it in a form that fulfilled all the requirements of modern medicine.

Coniine is a volatile alkaloidal base, so that when it is being prepared the odor of mice diffused by it makes the women of the factories hysterical. Its salts, however, are stable, and, when made up in sugar-of-milk granules, are as enduring as any alkaloid in the Pharmacopeia. Coniine being a nerve-sedative, the hydrobromide obviously is the proper salt to select.

Since its commercial introduction, we have been enabled to study the action of coniine hydrobromide with the necessary accuracy and to apply it therapeutically with precision; so, can speak of it convincingly.

Coniine is specifically a sedative of the centers in the spinal cord. Its action is first displayed on the peripheral terminals of the nerves, then on the conducting cords, and, finally, on the centers. Primarily, and briefly, it accelerates respiration and raises vascular pressure, but this soon is reversed and the sedation increases with repeated doses, until it ends in complete paralysis. The action is quickly manifested, while that of a single effective dose endures about four hours. Coniine is eliminated by the kidneys and partly by the lungs, passing off in gaseous form, but the doses administered therapeutically are not large enough to impart the mouse-odor to the breath.

The first indication for the drug should be one calling for lessening the cutaneous and peripheral irritability anywhere in the distribution of the spinal nerves. Application of the drug may be made when one is dealing with any of the spasmodic forms of pulmonary irritation, asthma, pertussis, irritable coughs of every sort. Singultus gives way to coniine if the cause first be removed, such as an overloaded or dilated stomach. Coniine may replace atropine in whooping-cough oc-

curring in full blooded children, with a tendency to cerebral hyperemia; in fact, the former is preferable, as a rule, in this malady.

The sedation of cutaneous irritability points to its application in tetanus and poisoning from drugs of the strychnine group. So also in rabies, coniine should prove a useful palliative. In chorea it comes near being a specific if the etiologic element first is eliminated. Of course, it would be absurd to give sedatives without first correcting ocular defects or other causes of irritability.

In neuralgias, the action is not so certain. Coniine acts principally upon the motor tract, but is not without control over the nerves of sensation. The term neuralgia has not the definite meaning it once was credited with, and the malady, as met clinically, may be compounded with neuritis, results of trauma, lymphatic deposits along the nerves, autotoxemia, reflex irritations, and so on. One would deduce from this that coniine may be useful as an ingredient of a prescription for neuralgic pains rather than to be administered alone for its single action.

Coniine acts as a potent sedative upon the sexual function, in both sexes. It relieves spasmodic dysmenorrhea with certainty; it quells nymphomania and also its kindred, satyriasis; prevents erections and the consequent chordee in gonorrhea, and always should be given in acute forms as a preventive of this latter symptom, with its disastrous consequences. The wise and observant physician will find many instances where application of coniine may be made for this purpose, without enlightening the patient as to the remedy or the reasons for giving it.

In epilepsy, coniine is so exactly indicated that it is difficult to explain its neglect. The diminution of peripheric irritability and sedation of the spinal centers and the sexual apparatus are all needed by epileptic patients. This writer has employed coniine largely in this malady, and places it far above the bromides in real effectiveness, although perhaps being less prompt in manifesting its beneficial activity. Coniine does not interfere with digestion, impoverish the blood or impair the mental and muscular forces.

Frequently, where the best diagnosis the clinician can make at the time is, "nervousness," fidgets, temper, discomfort, and so on, coniine will afford relaxation and quick relief while one is waiting for the action of the laxative.

For adults, the usual dose is a milligram, and this should be repeated every half hour or three doses, then hourly for three more, and subsequently according to the effect. When this is at all manifest, the doses should be spaced at four hours, if the effect is to be maintained.

Like all relaxants, coniine is rapidly eliminated, and the effects of an overdose are soon past, unless it is of lethal amount. Strychnine to effect, and this maintained, is the treatment for overdosing.

Who knows not pain, knows not, alas!
What pleasure is. Who knows not of
The bitter cup that will not pass,
Knows not the taste of love.
O souls that thirst, and hearts that fast,
And natures faint with famishing,
God lift and lead and safely bring
You to your own at last!

—James Whitcomb Riley.

LIQUID PARAFFIN IN CHILDREN'S INTESTINAL DISEASES

As the hot weather comes on (it doubtless will be in full blast by the time this number of our journal issues from the press) and the doctor is confronted by the inevitable epidemic of children's diarrheas, of varying degrees of severity, there will be a crying demand for an effective cathartic with which to clean out the infected bowels of young America and thereby prevent, if possible, or at least shorten the threatened attack of enteritis. For, vigorous catharsis, timely produced, not only mitigates, but often succeeds in heading off the invasion of the Shiga bacillus and its associated bacterial hordes.

There are, of course, laxatives aplenty, in and out of the Pharmacopeia. But not all of them, by any means, are desirable in these conditions. The great trouble with most of them is that they irritate the already irritated and irritable tract and thus at the very outset impair the physiologic integrity of the intestinal mucosa, upon which the defensive capacity so greatly depends. The prime desideratum is, to use an agent that will efficiently clear the bowel of its contents, and, at the same time, not only will leave its mucosa and its glands unirritated, but, if possible, even help to soothe, and heal, and restore these inflamed tissues.

We have an almost ideal agent of this kind in liquid paraffin; and in the aromatic emulsion of liquid paraffin we have an excellent pharmaceutical preparation of this agent. Charles McNeil, of the Royal Edinburgh Hospital for Sick Children, after a year's experimentation with liquid paraffin, reports, in *The Edinburgh Medical Journal*, that its influence (outside of its laxative action)

"is, probably, to soothe the congestion and catarrh of the surfaces, to diminish the congestion of the blood-vessels, and to restore a healthy activity to the digestive glands."

According to Doctor McNeil's findings, liquid paraffin is of value, not alone for its sedative laxative effect in infectious diarrheas, but for its alternative influence in intestinal dyspepsia of young children, which is of much more frequent occurance than are cases of actual Shiga infections, but out of which many times a true infection takes rise.

"The sedative and restorative action of liquid paraffin upon the unhealthy mucous membranes," he reports, "is followed by rapid improvement in the condition of malnutrition." And he adds: "I have tried the other well-known medicinal remedies for chronic dyspepsia, both alone and in conjunction with other emulsions, and I have been persuaded that in most cases the treatment by liquid paraffin and castor-oil is superior to everyone of these."

It is certain, therefore, that in emulsion of liquid paraffin we have an invaluable addition to our armamentarium for combating those trying conditions of the child's gastro-intestinal tract that tax our prophylactic and therapeutic resources during hot weather. Incidentally, the oil is tasteless, but, by the addition of aromatic flavorings, can be made just as agreeable to the palate as one may desire—a factor of no mean value when one is dealing with children.

A retentive memory may be a good thing, but the ability to for_et is the true token of greatness.
—Elbert Hubbard.

THE CURATIVE AND PROPHYLACTIC TREATMENT OF TETANUS

A highly instructive discussion of the problem of the cure and prevention of tetanus took place at a meeting of the Society of Physicians of Wien. (*Vienna Med. Woch.*, 1914, p. 2476), those participating being Doctors A. Klein, Wiesel, Ortner, Schnitzler, A. Exner, Riehl, and Paltauf. In the following review of the facts related and opinions expressed, it will suffice to speak in general terms rather than specially as to the respective utterances. While perhaps bringing out nothing particularly new, the value of this symposium consists in presenting in a nutshell virtually all the important connected facts and latest experiences relative to this serious disease; this more especially, in view of opportunities of study at present offering in this most deplorable of all wars.

One of the salient points brought out—and emphasized over and over again—is the fact that tetanus-antitoxin serum exerts no influence upon the disease-process once tetanic symptoms have developed; all these injections then can do is, possibly to prevent serious exacerbation.

The reason for this is plain: The toxin given off by the pathogenic bacilli imbedded in the wound is taken up by the peripheral nerve-endings, thence proceeds centripetally along the nerve-paths, until finally it reaches the central nervous system housed in the skull. The toxin disorganizing the nerve-cells is the cause of the muscular spasms, while the function of the antitoxin is, to destroy the poison given off by the bacilli. Thus, the serum injections constitute a prophylactic measure, but can not antagonize the spasms, for the reason just stated.

A number of deductions logically follow: The toxicogenic microbes must be eliminated; the spasms must be combated with symptomatic measures; the amount of toxin absorbed by the nervous system determines the intensity of the attack; the relative rapidity of the appearance of tetanic symptoms predicates the prognosis—the shorter the period of incubation, the more serious the attack; the nearer the site of infection to the central nervous system (brain), the shorter the incubation-period and the greater the danger; introduction of the prophylactic agent into the wound and immediately above is the rational way, injection into the veins is of some value, intraspinal administration is valueless; symptomatic treatment aids in conserving the energies of the victim.

As to the intravenous administration of antitoxin after tetanus has developed, it may be assumed that, in case lethal proportions of the toxin have not as yet been absorbed into the system, possibly further absorption by the nerve-termini may thus be prevented.

In animal-experiments, the injection of antitoxin into the involved nerve, has been found to "block" the progress of the toxin from the wound. Thus, when such an endoneural injection is made into the ischiatic nerve and then tetanus-germs are implanted above the site, tetanus will occur in the body of the animal, but not in the leg below the injected point. Since in man, however, 300 units would be required, endoneural injections are impracticable; and it is here where injections into the vein are indicated. Still, in localized tetanus, the endoneural method is strongly recommended.

The absolute amount of toxin reaching the central nervous system determines the question of deadliness; consequently, the farther the wound is removed from the brain, the longer will be the period of incubation, and also in proportion the poison engendered is spread throughout a larger measure of nerve-tissue. Thus, an infection at the hip is more dangerous than one in the foot, but a wound on the shoulder gives rise to the symptoms far more rapidly, of greater severity and with very bad prognosis. Trismus is a sign of systemic poisoning, and, the more rapidly it is followed by opisthotonos, the greater the probability of a fatal issue.

Prompt prophylactic measures, it is plain, are of highest importance, and, whenever a wound has come in contact with earth, horse-dung or shreds of clothing, tetanus-antitoxin should immediately be injected — into and around the wound and intravenously if not attended early. Dr. A. Exner, for instance, stated that, in the Balkan war, out of 2000 soldiers having ragged wounds and instantly given prophylactic injections, hypodermically and into the wounds, only 0.8 percent came down with tetanus; the present war should present even better results.

In addition, the wound (laid open freely, when practicable) must thoroughly be disinfected. The sentiment of speakers was against amputation (under certain circumstances) as a means of removing the poison-breeding nidus, inasmuch as the same end can be attained therapeutically, while being useless after the absorption of any notable proportion of the toxin.

Several methods of sterilizing the wounds were mentioned, as having proved satisfactory. One speaker, for example, applies to the wound liquefied carbolic acid, which in a short time is rinsed away with alcohol.

The most interesting, and perhaps somewhat novel, suggestion was the one made by Professor Riehl, who favors chlorinated lime, saying, that its prompt application undoubtedly would tend greatly to reduce the percentage of traumatic tetanus. This chlorinated solution retards the proliferation of the bacteria and also destroys organic matter, including tetanus-toxin; wounds thus treated soon become clean. If used not too strong, no harm is done to the musculature.

Riehl has been employing chlorinated lime for several years for cleaning wounds. As a matter of fact, this chlorine-therapy is in use for counteracting snake bite, and pastils of the chemical are to be had for that purpose. (He asserts having carried such pastils for two or three years, when they still were active.) These pastils are dissolved in water, and the solution is injected round-about the snake bite. The speaker thought that these chlorine compounds also might destroy the local tetanus-toxin as well as the bacteria, when used as for snake bite. For cleansing purulent wounds, he suggests a dressing with a powder of 1 part of chlorinated lime and 9 parts of white bole. Doctor Paltauf also has found this chlorine-therapy excellent for putrid wounds.

The symptomatic treatment endorsed is that at present in vogue, namely, quieting the nerves by means of large doses (5 to 10 Grams per day) of chloral hydrate, internally or rectally; parenteral administration of magnesium sulphate; darkened room and quietude of surroundings. The heart should be supported with digitalis.

Professor Paltauf mentioned that experiments were being conducted, in his institute, by Loewenstein and Eisler, with the aim of reducing the toxicity of tetanus-antitoxin, without impairing its immunizing properties. The idea is, to incorporate with the serum some formol.

A good deal of the trouble of this world arises from the fact that some folks like to have gardens, while others prefer to keep hens.—Nixon Waterman.

THE LABORATORY AND THE DOCTOR

Four prime functions are fulfilled by the laboratory, in its relation to medicine; these being, briefly, to impart knowledge by the inductive method, to cultivate the powers of observation, to apply science to the problems in hand, and to afford opportunity for research and experiment. The didactic lecture, in the curriculum of the medical student, far from playing the entire role, has, in these modern days, assumed the humble part of handmaid for the laboratory-course.

This is as it should be. The methods employed in the laboratory cultivate in the student habits of accuracy, carefulness, and thoroughness; virtues that are destined to last him throughout his career, whether as an investigator or as a practicing physician. It is highly important that all that is known in the realm of exact science should be applied to the problems of medical practice, and the numerous provisions made for the prcatical use of the laboratory, by doctors in the city as well as in the country, are to be warmly commended.

It is to be borne in mind, however, that these very commendable attributes of the laboratory hold, each of them, an equally specific and emphatic danger. Thus, the cultivation of the inductive method of imparting knowledge, if carried to excess, destroys the power of imagination, without which all knowledge is barren and valueless. The cultivation of the powers of observation, to the exclusion of the faculties of logical analysis, leads to a slavish dependence upon, and bondage to, sheer facts, as though facts of themselves represented the truth. The rigid application of the laws of science to problems in hand, if pressed to extremes, shuts out consideration of the "unknown" factor entering into every problem of medicine. Finally, the spirit of research and investigation, excellent as it is in its proper place, is a dangerous thing when present in only a limited degree, just enough to disturb a practical mind and not enough to make a good investigator.

The whole situation may be summed up in the comprehensive statement that the laboratory represents the inductive viewpoint of medicine. Now, the inductive method, in any department of knowledge and work, is a most useful and valuable phase, if one constantly bears in mind its limitations and its dangers. However, induction never has created a single idea worth mentioning. It is not in the nature of induction to be creative. All creative movements have been deductive in their origin. The creators in science, big and little, have always been the men who, having marshalled and classified their facts, have said, "These facts do not account for the situation — there is something beyond them, to which they are mere contributors or from which they spring." The inductive aspect of things is, after all, a barren aspect. Induction is, in the end, merely a check upon deduction.

Our readers know that we have consistently and persistently advocated the utilization of the laboratory and its methods, both in education and in practice. Indeed, as we trust all of our readers also know, we are greatly interested in clinical laboratory work, and we strongly urge them to take the widest advantage of this aid at their command. However, we feel constrained to point out concerning the laboratory (as did a certain distinguished mathematician about mathematics) that you cannot get out of it any more than you put into it. It will give you the value of x, but it will not solve the problem in which x is a factor.

Laboratories do not furnish diagnoses and prognoses readymade. The laboratories can not replace the head-work of the doctor himself; on the contrary, in a certain sense, they tend to increase it. They furnish invaluable—one may even say, indispensable—data upon which to make a diagnosis or a prognosis, yet, it still remains for the physician to interpret these data and to work out the problem; and he who expects the laboratory to furnish him with coin-in-the-slot complete answers to his diagnostic questions is almost as hopeless in his relation to the laboratory as the one who does not have recourse to the laboratory at all.

The laboratory itself, if organized on that plan, and if fittingly equipped, can assist in this diagnostic phase, also, by suggesting interpretations of the findings. Nevertheless, even this will not do away with the necessity of the physician doing his own thinking.

GOOD WORK—KEEP IT UP

Dr. Charles F. Taylor, through his live publication, *The Medical World*, is putting up a great fight for the protection of the legitimate interests of the medical profession. If you are not reading *The World* these days, you are missing a good thing. I have just been perusing the May number, and it is filled with stuff that should stir the blood and rouse the fighting propensities of every doctor who has a real backbone. I wish Brother Taylor's editorial, "Your Rights Are Threatened," published on page 165 of that issue, could be brought to the attention of every physician in the United States.

Not the least interesting part of this editorial is another editorial, reprinted verbatim from the *N. A. R. D. Journal* of March 25, this being entitled, "Propagandic Work and the Dispensing Doctor." In this editorial, the editor of the *N.A.R.D. Journal* attempts to point out that, by eliminating the dispensing doctors, or, rather, by securing the enactment of laws that will prevent them from doing their own dispensing, the druggist can gain an average additional profit of several dollars a day.

As every reader of CLINICAL MEDICINE knows, we have no quarrel with druggists. We believe doctors and druggists should establish more friendly relationships, the basis being *service* to the patient, not *profit* for the man. Also, druggists should get the foolish notion out of their heads, that the tail is going to be permitted to wag the dog. The "dog" may begin to show its teeth, if these attacks continue.

Leading Articles

An Old Doctor's Life Story

An Autobiography

By Robert Gray, M. D., Pichucalco, Mexico

EDITORIAL NOTE.—This article is the fifth instalment of Doctor Gray's autobiography. Every physician should read this intimate record of the unfolding of an unusual life. Doctor Gray was born in the Old South, was educated in France under the old regime, fought through our Civil War on the Confederate side, and soon after its close plunged into the very depths of tropical Mexico, where he has spent the greater portion of his romantic and adventurous life. Now, at the age of eighty-five, he has given his story to the world through the pages of "Clinical Medicine."

[*Continued from page 249, May issue*]

LIKE a warning ghost, I stood in the dining-room, unexpected, while my father's family, my plighted Carrie, and some other visitors were at table at the Sunday dinner-hour. My sisters, as if by intuitive prescience, leaped from the table in a paroxysm of tears, while Carrie rose pale and silent, yet, mastering whatever unexpressed feelings mayhap had been rankling in her bosom; but my mother rose with dignified composure, the deep imprint of the resignation of settled melancholy legibly clear in her regal features. I was asked no questions as to the why or the wherefore of my coming. My mere presence there answered all.

I had heard, before reaching the house, that my father had organized a company of cavalry; the same news that came to me having reached him three days earlier.

It runs radically contrary to the grain of my inclination to touch upon any feature of the war scenes that are about to occupy some pages; nevertheless, they are indispensable, being the corner-stone and foundation of my tropical involvement. Moreover, they seem apt and pertinent at this darkly portentous hour, when any day may shadow forth the repetition of such mournful despair in the fair land of my birth, while her sons, born long since the day I mingled in her brooding wo, are rallying to wage war on poor impoverished Mexico, whose people are proud and patriotic, but almost helplessly exhausted by internal strife.

The Mexican Problem

It is not perilous work for principleless newspapers to goad the government into war, and then for the silvery-tongued orators to inflame impulsive youth to enlist and go away to die in some marsh or ravine or forest thicket. But the life-long sorrow that wings away from fields of victory or of defeat, to perch in desolate homes forevermore—who, who may console the bleeding hearts pining there? Not the flattering minstrel's heroic lay nor the polished sheen of marble monument can assuage the consuming grief of the fondly yearning mother-bosom. And, note well, in a war in which bleeding Mexico is vanquished, there will be as many mourners at its end as there were in the North and the South when the Civil War was ended.

Up to this date—June 27, 1914—more than 200,000 Mexicans have been slain by Mexicans, in their insensate fratricidal conflict, and more than half of their fair land has been laid waste. The tidings of the taking of Vera Cruz made my blood run cold and curdle in my veins, under the conviction that the deadly struggle was inevitable; and even yet I am haunted by the fear that the peace negotiations at Niagara may terminate in some perilous disappointment and will call the hopeful youths of the United States to the shambles of slaughter; for, the miasmatic fumes of these torrid wilds hold in reserve more deadly dangers than do all the shell and shot that the poor Mexicans will be able to employ. There are dangerous insurgent or bandit bands doing deadly destructive work near where I write, murdering and burning, whom the pursuing troops have been unable to bring to bay for many weeks; and they cause much justified alarm among the defenseless populace.

And such will be the warfare against Americans, should they penetrate into the

interior: perpetual annoyance to their communications and while on the march, while unavoidable death is lurking in the water, the air, and the ground, slaying the invaders without a bullet scratch to vary the monotony. And it is startling to contemplate what long and trying years this immolation of Americans will drag along, should the Mexican people resolve to resist to the point of extermination, as they threaten. And this seems very probable to one familiar with the obstinacy of the small bands operating near here, which, though apparently destroyed and quiescent for a long period, suddenly reappear freshly recruited and ready for more mischief. The percentage of rebels under arms in this belt, compared with the troops pursuing them, is less than what the Mexicans can put against all the Americans that possibly may come against them, should the insurrectors prove patriotic.

These reflections on the present and the strongly probable impending events have been dovetailed in here, getting ahead of my story some fifty-four years of time, in order to serve as a comparative counterpart of what may be at hand should tranquilizing admonitions be disregarded. The mournful horrors of our civil war are measurably forgotten or unknown by the young men of America; and those are doleful memories to treasure, which one fain would forget, save to serve as warnings against rashness that might precipitate like disastrous consequences. Now to take up the thread again.

Marriage Delayed

I passed as little time at home as I could under plausible pretenses, and still less with Carrie. To Carrie I said, in our first interview, that it seemed to me that the celebration of our nuptials was at an end, and she readily agreed that they better were held in abeyance till the threatening storm was over. I told her I was not going into the armed service, but would be a volunteer first-aid surgeon in the rear shadow of the firing-line; not enlisted in any government service, nor on duty, save in time of battle or for such time as I might be useful to wounded men who could not be promptly moved to distant hospitals. She replied that then it was her determination to spend her time and money in administering to the wants of the families of poor men who might be absent in the army.

By my father as well as others, I was urged to raise a regiment and go to the front and win laurels. I told my father that West Point, which he refused me, would have made such destiny my proper ambition, but that Paris had taught me far different lessons; that any drop of blood shed by me in that miserable brother-murdering would be spilt in striving to save life, by treating the wounded in the best possible manner; that my part with the murderous crew was not to shed blood. And I remained inflexible to the last day of that savage butchery.

I spent much of my time, when at home, in the slave-quarter, talking to negroes who had been my playmates in my childhood days. I admonished them to stay at home and be faithful, whatever might happen; telling them that, if they sided with the Yankees, they would be made soldiers, whom we should have to kill.

The scenes of those dark and ominous days are not mere specters of night mare dreams to me, even at this late day. I have tried to forget them, having at times banished them entirely from mind for months and months; still, ever and anon they would come softly stealing back upon me, even as they are teeming tonight, over the lapse of so many long and trying years.

The Days Before the Parting

There was no check nor stay to the violent fire that we fanned into a raging flame, coolly conscious that there would spring from that rash, intrepid act immortal fame with empire intactly inviolate, or else mourning the loss of our magic dower, our beloved Southland shattered beyond the power of redemption. We recklessly cast the die, and valorously shut our eyes to the possible dire consequences.

I have witnessed many sad and mournful scenes, as they were interspersed all along among the vicissitudes of my long and checkered career; but none to compare with those early partings on the threshold of the battle-storm, as the men tore themselves away from the farewell embrace and the last long, lingering kiss of love, to return—when? A question even conjecture shuddered to ask.

And the day came when the ordeal was mine. There were my adored mother, my good old grandmothers, my darling sisters, and the queenly Carrie—the latter mute in the throes of her nameless wo—and my silent dry-eyed sire (the chief of light-horse cavalry), who was leaving at the same time, to face destinies of dark antithesis.

Then and there began my strenuous pilgrimage in the medical realm, whose grim and ghastly aspect startles me even now as I write by the light of the midnight lamp, as

if I gazed upon a procession of infernal fiends; so terrible is the backward track along which I have come down this horrible vale of years.

The Wreck of Battle Storms

Intense solicitude at home and interest abroad centered in a sequestrated rural retreat of Prince William County, Virginia, in the early days of July, 1861, where there meandered a sluggish little stream—Bull Run—and nestled an insignificant railroad station—Manassas Junction. There was concentrated at this point the main body of Confederate troops, while the Federal army was around and in front of Arlington Heights, across the Potomac from Washington. This army had been enlisted for three months, and then was in the second half of the last month of that term; while the papers of the North joined in harmonious reverberation of "On to Richmond!"

I was domiciled in a small farm-house, off the road a little distance, between Sudley Ford, on Bull Run, and Manassas. I had secured a young Frenchman from Paris, a graduate in surgery, to assist me in major operations.

On the 16th of July, we knew the Federal army was advancing; and on the 17th we galloped down to Blackburn's Ford, in response to sharp firing reaching our ears. But, it was all over ere we arrived, save for a few parting salutes of cannon shot, with everyone hurt already removed from the neighborhood of the scene. Hence, we rode back, and passed three days in comparative quietude.

But, the immortal Sabbath of July 21 was rudely profaned ere the twilight dimmed the soft brilliancy of the morning star, and while the day still was new and young the intonations of the cannonade were reverberating in the dome of the capitol at Washington and far back among the crags and ravines of the blue misty mountains; while the telegraph was ticking the startling tidings far and wide over the broad distracted land, the longest hours of the most anxious day that up to then ever had dawned over the United States passing like slow ages of torture to many people everywhere.

My First War Surgery

We had plenty to do ere the day was half spent. We found a genial old surgeon and a medical student at a little spring in a deep ravine, and here the ambulance-corps was to direct the wounded who could walk and bring the helpless ones on stretchers. The surgeon had been through the Mexican war and knew what he was about. I imagined I would be rusty, as I had done but little surgery on the plantation; yet, all my scholastic practice came back like an inspiration at the first serious case that fell to my lot.

The old surgeon was engaged in the amputation of a thigh, when one came to me whose foot had to be amputated just above the ankle; and this I finished ere the other was done. Then a man with a fearfully mangled thigh was brought to me, requiring a high amputation and quick, dexterous work; for, the man was in a most critical condition, and I do not think I ever did a more admirable piece of work or one more expeditiously in all my life.

My companion finished his task when I was just fairly beginning; and he stood watching me in speechless, open-eyed wonderment till I was done, when he asked me in what war I had gained my practice. He was inclined to be incredulous when I assured him it was my first serious operation since I left school; but, when I further explained the method of my tuition, he said all surgical students should have the same practical lessons that enabled me to work so adroitly. He added that it would have taken him double the time I occupied in performing the operation. Continuing, he said that minutes really were ages upon which life was dependent in such cases; that he was assistant for a long time in Mexico ere he would have dared to attempt such an operation, after his graduation and some hospital study; and that his assistant nearly swooned when the first blood spurted on his hand from the incision.

The fighting near Stone Bridge had slackened in the meanwhile; so we had little more to do till in the afternoon, when a rush began that lasted all night. All this time a drenching rain was falling, and all next day, while many of the poor, helpless Federal boys who were left behind unavoidably passed the night where they fell. I felt no rancor for those poor fellows, many of whom gave me addresses and implored me to write home for them, should they die. We discovered that they had entertained a holy horror of us Southerners, convinced that we should massacre them. When, however, they met the unexpected warm-hearted surgical sympathy and kindness that dawned over them from tear-dimmed eyes, they supplicated us to send home remembrances; and this not from me alone, but from all the others who, from a sense of common human duty, were attending

them. Even our own not seriously wounded men divided their broth and coffee or whatever other eatables they chanced to have or get hold of with their disabled foemen.

At one time, in the afternoon, it seemed that we were defeated—and were, perhaps, but for the cool intrepidity of Jackson and the unwavering discipline of his sturdy Virginians, besides the timely arrival of Kirby Smith from Winchester. The Federal victory then telegraphed all over the North and its announcement in extra afternoon papers proved a deplorable burlesque, followed so soon by a defeat that developed into a rout.

I declined any surgical appointment, preferring to remain independent, without pay, bearing my own expenses and those of my young Frenchman and our servant, a bright young slave from the plantation of my father. The medical supplies of the South were so wretched and the camp practice so crude that I shrank from any participation in medical work, save amid the wreckage of the battle-storms and in a purely surgical capacity.

Not very long after the July scenes were enacted on the tragical stage, my father perished in some one of the ambuscading campaigns between General Lee and McClellan in West Virginia, somewhere around the north base of Sewell Mountain, where most, if not all, of his men were killed or captured. I never learned where or how, but for many months supposed he was a prisoner.

Working Again at Shiloh

I tired of the inactivity and went southward just before the Confederates abandoned their winter quarters at Manassas; and I did my next serious work in a ravine, near Shiloh church, on the 6th and 7th of April, 1862. And there was enough to do to have satiated a fiend. The number of wounded was out of all proportion to our surgical capacity. Most of the surgeons had had very little practical experience, and they left with their retreating commands early the second day; the wounded, unable to travel, being left behind. I remained, not really knowing what had happened, till the Federals were between me and the defeated Confederates.

As I was not enlisted, I had little fear of not securing a parole; in fact, I gave the question little thought. I had treated a number of wounded Federals the day before; men who were captured, but were left behind when the Confederates fled. One colonel, who had required an amputation at the articulation of a thumb, was so grateful for the prompt care received, that he at once interceded for me, and quickly secured permission for me to continue assisting my own wounded, with the assurance that I should be unconditionally released, save the provision that I do not bear arms when my work were done. I remained ten days, and was magnificently treated by the enemy.

On the morning of the 27th of June I was, up to the front behind the Confederate line of battle attacking the Federals under Porter, near Gaines Mills, we having passed over a broad belt of the Federal encampment of the day before, whence they had retired to the new position. Time and again the most furious Confederate charges were repulsed, all day long till darkness set in, when the Federal center broke and the whole front retired, routed, leaving behind a horrid spectacle of wounded, who largely still lay on the ground where they fell, hopelessly abandoned; for, we ourselves had some 7000 wounded for the day, which precluded the slightest attention to wounded Federals. Hence, McClellan was advised, and he sent a large corps of surgeons to assist the despairing sufferers.

It was necessary for us to remain at our posts throughout the night and till late in the afternoon of the next day, in order to clean up the horrible scene on our side and to dispatch the poor victims to the hospitals in Richmond.

Just before night, I and my young Frenchman walked over to where the Federal surgeons were at work in the long corridor of a big two-winged old mansion and under the shade of great trees, their wounded, when brought in, being laid under the trees, covering several acres of ground. Most of the men had fractured lower limbs, which rendered them incapable of leaving the field. As the limbs were severed, they were flung into a pile from all sides, thus a horrid mountain of them (I estimated them at 1000) being accumulated. And still they came, augmenting the ghastly heap.

One Amputation

I was attracted to a pallid, emaciated youth, not above seventeen years, whom a brusque old German surgeon just was placing on his plank. The limb was bared, the incisions made, and the arteries were taken up in scientific order, clearly demonstrating the artistic qualification of the operator. Then he seized the saw and began a fiddle-bow maneuver, the bone soon giving off a screeching as produced by a loose splinter on a dry fence-rail one might be trying to saw.

I turned blind and came near swooning, when my companion clutched my sleeve and said, "Let us leave this!" He, too, was pale as chalk.

How strange, after all the horrors we had passed and that even then loomed up around us on every hand and at every point of view, that such simple incident should have made the same unnerving impression upon both of us at the same moment; and my friend was familiar with the hospital horrors of Paris and of Shiloh, and had mingled in the most shocking wreckage a battle makes in quick flesh and seen the flow of blood for more than the past twenty-four hours.

My next serious experience was in front of Malvern Hill, where I watched the terrific play of rifle-cannon that General Lee brought to play upon the Federal position, with the object of breaking the morale of the fagged and dispirited troops, which his fine divisions, flushed with victory, were massing to charge. During this prelude to the fierce and furious slaughter about to follow, the surgeons could watch the fearful scene from a safe distance ere their trying task confronted them.

The dreadful charges and horrid slaughter soon began, repulse after repulse being the discouraging chagrin of the assaulting troops, till night and pitiless rain terminated the havoc. Our loss was fearful, probably double that of the enemy, entailing all-night work among the wounded. However, I myself was off duty, owing to a disabling though not dangerous flesh wound received just before the battle ceased.

I was back on the plains of Manassas on the 30th of August, in a ravine behind the position where Longstreet's corps went into battle, when it was my misfortune to have inflicted a more serious wound, in the afternoon, than was the one at Malvern Hill, and this kept me off duty till the battle of Chancellorsville, where I had a full share in the repairing of my mutilated comrades.

My Experience at Gettysburg

The next field of horrors at which I saw unrolled its murderous contingency was that of Gettysburg, on July 3, 1863. I occupied a position that afforded an unobstructed view of the dreadful artillery-duel with more than two hundred cannon, and also of the awful charge of Pickett over a valley, under cross artillery-fire and infantry-fire, and up a steep rocky hill, where the chivalrous Virginians withered in that infernal fire, till finally probably less than one out of ten returned. Our casualities were more than 25,000 men, while those of the Federals could, hardly, have been less. I remained at my post, aiding the mangled men, so horribly absorbed that I did not realize till next day that Lee had definitely retreated; and the Federal authority offered no objection to my working among my wounded countrymen, the northern surgeons having their hands and hearts full with their own. The burying of the dead was a ghastly task. There must have been fully 10,000, although there was no official counting, the estimates given out being less than that. Friends and foes were heaped promiscuously, one on top the other, as many as six and seven high, in some ravines and gullies.

The next day we knew that Vicksburg had surrendered 30,000 men and more than 200 guns—a loss to the Confederacy of some 60,000 men in four days, including casualities of July 1 and 2 in the neighborhood of Gettysburg. This sounded the death-knell of the aspirations and hopes of Dixie Land. I remained there till all my Confederate wounded were removed or dead; the deaths being many, partly from mortal hurts, others, the victims of loss of blood and whom timely attention might have saved, some having lain on the field till in the night of the next day after the battle, as was the fate also of some of the Federals.

One ghastly experience I recall was during the battle of the Wilderness, where great numbers, possibly several thousand, of dead and wounded of the two armies were burned in the forest fires resulting from exploding shells.

At Spottsylvania, the second day, I got me another wound, and this incapacitated me for service for several months. When, at last, I might have been useful again, there no longer were thousands upon thousands of wounded men, nor a lack of surgical aid. The long-drawn siege of Petersburg furnished its daily quota of casualities, but there was a superfluity of able military surgeons to care for the victims.

I wish I had my correspondence with Carrie or, rather, a few of her letters, to quote some passages; but I lost the last fragment some forty years ago. Carrie and I were reconciled to the ending that was to come, thoroughly satisfied, after Gettysburg, that ours was "The Lost Cause," and we were planning for the changed and unpropitious future, she being sanguine that we might rise again from the wreck of our inevitable ruin. The cheerful spirit of that woman would have lured a man from the deepest depths of the darkest despondency; and she

inspired me with a sense of resignation, where there was no visible shadow of hope.

The End Comes

When Lee was checkmated at Appomattox, I was in the front positions and narrowly excaped the advance division of the Federal cavalry that blocked his way and came between me and the army. Then came the surrender to Grant. As for me, the moment I knew that Lee had given up the hopeless struggle, I wended my way homeward. My young French assistant I had released months before that. My home had been a long time in the lines of the enemy; and I knew nothing more about it than that there had been widespread burning of houses; no tidings having come from there for a long time. Still, our plantation being situated on the far outskirt of the burned belt, I hoped that it had escaped.

I rode on and on, day after day, till one day, I was within twenty miles of it. It was a region where no one lived; but I had a feed of corn for my horse, and, so, resolved to rest till midnight, then start up and arrive at my destination in the early morning, since the road was good, although leading through a desolate pine-belt. I slept well on the pine-leaves, beside a little stream, and was jogging along again through the sand soon after midnight. I had never been back again, for I did not relish those parting-scenes; and it were sadder to return and then leave again than to stay away altogether. I was derelict in the matter of writing, even Carrie's letters often were a month unanswered, when, in fact, I had plenty of time to have written almost any day.

The heart naturally palpitates expectantly when nearing one's old cherished home under such circumstances; and so it was with me as I approached the long-unseen homestead and my loved ones, and the other one not far away.

(To be continued.)

Anemonin: The Active Principle of Pulsatilla

An Effective Remedy in Diseases of the Sex-Glands

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ANEMONIN is a volatile camphoraceous principle obtained from anemone pulsatilla and anemone pratensis. This principle is diuretic, diaphoretic, and emmenagog. Applied locally, it is an active irritant, giving rise to a tingling and burning sensation and producing vesicles and pustules. The application of the bruised fresh root has been reported to have caused gangrene.

Taken internally, anemonin produces symptoms quite similar to those from aconitine, namely, tingling, burning, and numbness of the tongue and lips.

In toxic doses, it causes nausea and vomiting, and also a slimy diarrhea and bloody urine. There is a marked inflammation of the mucous and synovial membranes, the myocardium is weakened, there is edema of the lungs, and hyperemia of the spinal and cerebral membranes.

It exerts a direct influence upon the brain and spinal cord, and toxic doses produce mental hebetude, mydriasis, and, in extreme instances, convulsions.

Its action upon the heart greatly resembles that of cactus, increasing the power of the cardiac muscle and improving the strength and rate of the pulse.

Therapeutics

Anemonin is indicated in patients who are indecisive and slow. As a rule, it seems best adapted to persons of the lymphatic diathesis; those having light hair, pale eyes, and very easily moved to tears or laughter. People of this type are constantly depressed, look sad, are always apprehensive and in dread of some terrible calamity or misfortune that will overtake them or their family. While outlining their case, they cry constantly. They are mild, gentle, and timid. They imagine that there is a constant change taking place in their condition, and not two attacks are exactly alike. The absence of thirst is marked. There is relief from motion and while in the open air, while all the symptoms are exaggerated by being in a warm, close room, after eating, and when at rest. The discharges are bland, and yellow or greenish. Circulation is sluggish and the patient complains of a constant chilly sensation. When pains occur, these are accompanied by the chilly sensa-

tion; they are not restricted to any one particular part, but constantly change about from one locality to another; they also vary in intensity, being severe at one moment and the next moment, mild.

Anemonin is of great service in headache located chiefly in the forehead, supraorbital region or in the temples. The pain is heavy, bursting, and throbbing in character, and generally results from overeating. There is a bad taste in the mouth. The pain in the head is intensified by mental exertion, eating or being in a warm, close room.

In patients who give a history of overindulgence in rich, fat foods or pastry, there are eructations of sour or bitter matter and they vomit acid or bitter fluid. In dyspepsia, when there is a constant stuffy or full feeling, also regurgitation of partly digested food, with digestion slow, a dead, heavy feeling in the epigastrium, and there is chilliness, thirst absent, and a constant sensation of nausea, the tongue bears a white coating, and headache is prominent.

It is an excellent remedy in cases of diarrhea that are worse at night. The stool consists of mucus or mucus and blood, and no two stools are alike; they are green, bilious, watery; this condition being brought on by overindulgence in rich foods or fats.

Of Great Value in Genital Troubles

In orchitis, anemonin is the remedy of first choice. There is great swelling of the testicles and spermatic cords, which are extremely painful to the touch; this condition being caused by cold, although in the majority of cases arising from suppressed gonorrhea. In such cases, it is more efficient if combined with aconitine and phytolaccoid.

It should be given consideration in cases of delayed and scanty menstruation. The patient constantly feels chilly, and there are bearingdown pains in the sacral region and abdomen; also slight nausea. All the symptoms are increased at night and on staying in a warm room, while relief is experienced by being in the open air.

In dysmenorrhea, with the pains so violent in nature as to cause the patient to toss about in all directions anemonin is indicated; the blood in such cases is thick and black or pale and watery, and being in cold air makes the woman feel better.

In amenorrhea occurring in women who are pale, anemic, and chilly, of a tearful, yielding nature. Also in labor, when the woman suffers from spells of suffocation and must have the windows open.

Young anemic females having a tendency to emulate the example of Niobe and cry all the time, and who seek relief from an annoying leucorrhea, the discharge being thick, white and albuminous, find a comforter in anemonin.

In subacute bronchitis, when the cough is loose and there is a copious mucopurulent expectoration during the day, with tightness at night, anemonin is a sovereign remedy. These patients are anemic, there are nocturnal dyspneic paroxysms, and they feel worse in a close, warm room.

It is useful in phlebitis, following the administration of aconitine, when the limbs are pale-white in color and swollen, and the veins are hard, knotty, and intensely painful to the touch, while motion is impossible.

In rheumatism characterized by rapidly shifting pains. There is but little swelling, some redness, the part being cold, and there is a loss of function.

Psychologic Indications for Anemonin

Among the principles of Hahnemann, where the psychological phases of a case are given more attention than they are among the regulars, and the temperament and the individuality of the patient are considered of importance in the selection of a remedy, pulsatilla (anemonin) is especially given preference for patients who are slow or indecisive.

Blondes, they say, seem to be especially susceptible to the action of anemonin, this being referable, in all probability, more to the fact that blondes are more prone to be affected by the conditions in which anemonin is particularly efficacious than to any condition of the patient's complexion or individuality.

A Summary

Pathologic conditions that are subject to the beneficial influence of anemonin are, notably the following: (1) Epididymitis yields speedily to anemonin. (2) It has been found exceedingly useful in cases of whooping-cough. (3) All the eczematous forms of cutaneous diseases, indolent ulcers, and syphilitic eruptions call for anemonin. (4) In dyspepsia, when the tongue is coated white, with entire loss of taste, or there is a greasy feeling of the palate, besides nausea, flatulence, and heartburn, anemonin should be given consideration.

Specific Indications

Nervousness and fear of impending calamity, these accompanying amenorrhea,

dysmenorrhea or leucorrhea, and leucorrhea, with a thick white discharge, in anemic females.

Spermatorrhea, orchitis, scanty or tardy menses; sense of weakness in back or hips.

Headache of gastric origin; conditions increased by heat and relieved by being in the open air.

Discharges from mucous membranes are yellow, purulent in character, sometimes yellowish-green. Coating of tongue yellow and slimy. Pressure and feeling of fullness in the stomach. Shifting, and wandering rheumatic pains. Pains in the limbs, worse at night and from warmth, relieved by cold or being in the open air.

The Letters of Doctor Leonidas Playfair

Addressed to a Young Man Just Entering Practice

By A. H. P. Leuf, M. D., Philadelphia, Pennsylvania

EDITORIAL NOTE.—The difficulties of the young doctor! How many they are and how mountain-like they seem to the youngster; and how small and inconsequential they seem to us older fellows compared with the burdens we are bearing. However, let us give the boy a lift. This month Doctor Playfair tries to help settle the problem of "Prescribing versus Dispensing." We may not agree with him—but let us give him a fair hearing.

MY DEAR FRIEND: In reply to your recent letter asking further advice upon several subjects connected with your entrance upon the medical profession, and which you must have sent before receiving mine concerning office hours, I think that one of the most important for immediate consideration is as to whether it is better to prescribe your remedies for the apothecary to dispense, or whether you should supply them to the patient yourself.

The old custom of writing prescriptions could not have come into existence and been universally practiced without the best of reasons—the most effective of causes, namely, necessity and expediency. Nor could any other impulse and power have so largely displaced this ancient usage than these came two causes—necessity and expediency.

To determine the question as to which of the two is preferable, it is well to inquire, first of all, more closely into the reasons for their being.

I shall not attempt an exhaustive study of this question, for that would be a needless sacrifice of time—waste—but shall consider only those that are very evident, and about which there ought to be no difference of opinion. Thus, population was less dense in former times, people lived more remote, medical men were less numerous, and the proportion of patients to each physician was, obviously, much greater than it is at present. This necessitated the traversing of longer distances by the doctor, consuming more time than now in visiting and the advising of the sick, and thereby leaving less opportunity for rest and study after attention to outside calls and office work. You see that I say nothing of time for recreation, and this only because physicians, as a class, unfortunately indulge very little in needful relaxation. Therefore, they had less time in olden days for dispensing their remedies than we now have, all other things being equal.

Then, added to the foregoing, is a fourth fact, namely, that pharmacy was as yet quite crude. Only the simplest preparations of whole drugs were used. Active principles or constituents were unknown—unsuspected. Medicines were bulky. For instance, cinchona bark was taken in handful doses for intermittent fever. Now it is necessary to swallow only a few small tasteless or even sugar- or chocolate-coated pills or tablets. Drugs had to be gathered and suitably prepared in proper season at the cost of much time and labor; too much, by far, for the limited time of an active physician. There were no large pharmaceutic manufacturing houses selling reliable standard drugs in neat and convenient packages at reasonable rates, the newest and highly specialized alkaloidal granules.

Should the doctor, nevertheless, have attempted the work of the pharmacist, it would have required no little capital for him to accumulate and prepare his stock, and much extra room would have been needed in which to store it. Additional time would have been consumed in dispensing it to patients. The purchase of drugs of the right quality and at the proper time would have been another severe tax upon the doctor, incompatible with the proper practice and necessary emoluments of his profession.

From these few reasons, alone, it is evident that the physician of the olden days could not do justice to his patients if he essayed to be his own pharmacist. To all this you may add the additional fact that collections for medical services rendered in those days were not made as now. Then the pay was a honorarium—what the patient offered—presumably what his circumstances equitably enabled him to give according to the worth of the services rendered. Many honorariums consisted merely in profuse assurances of profound gratitude. Some money payments were cash, and some were not. The doctor's pay in those days was not nearly as good as it is now, despite present overcrowding of the profession.

How the Change Came

Within recent years, on the other hand, pharmacy has been revolutionized. First came the discovery and abstraction of active principles, together with their smaller bulk and greater accuracy of dose and uniformity of action. This more recently was followed by the use of coated pills, capsules, compressed tablets, tablet triturates, granules, and standardization of drugs. Then there rapidly followed the long and seemingly inexhaustible list of coal-tar products for the relief of pain and the reduction of fever.

Add to this the participation of manufacturing pharmacy in the present great economic trend toward centralization, and there come to mind the great drug firms having plants and equipments costing millions of dollars, and including, besides chemic, also biologic, physiologic, pathologic, and histologic laboratories for the further analysis of animal, plant, and mineral substances, for the abstraction and transforming of living products, and for the testing of all upon living animals. Even free dispensaries may be included as parts of these plants. In fact, the great dispensaries and hospitals of the land are tributary to them because of the donation to them, in any desired quantity, of new remedies of special promise for ample trial. Even the whole medical profession now largely acts as a multiple private experimenter in the testing of new remedies for these enormous manufacturing concerns. That this concentration and cooperation necessarily signifies enormously reduced prices and greater uniformity of goods, must only be suggested to be recognized.

The effect of all this is that drugs are more reliable than they were; they are infinitely more compact and, therefore, portable; their price has been reduced to a fraction of their previous cost. It is easier and cheaper to dispense one's own remedies now than it was many years ago. That they are more reliable, would be supposed, and is manifest to anyone using those made by great houses under the most approved methods, compared with the inadequate and disappointing substitutes often put up as "as good" by the small-trade druggist.

The Homeopathist's Laudable Example

I have briefly shown that the dispensing of one's own drugs was quite impracticable and undesirable years back, and that it is much more feasible now than it was then. However, there are other important reasons for this change; but, before debating these, I wish to call your attention to the rapid progress in practice building by Homeopaths.

As a rule, the Homeopathist develops a practice quicker than does the graduate of the regular, rational or unrestricted school. For this there are two major reasons, and incidentally several minor ones. For one, the Homeopathist always gives agreeable medicine. Thus, children do not dread him, women do not oppose him, and men are not obliged to pretend indifference to a nauseating dose, very often needlessly so. He does not interfere with the *vis medicatrix naturæ*. He never poisons a patient with an overdose.

Most diseases are self-limited, are not dangerous, while suffering may be lessened by suggestion. The mass of homeopathically treated patients are benefited by this masked, waking hypnotism—suggestive therapeutics. Some die because of it, by reason of being therapeutically neglected. And, yet, the question may be asked, "If that be so, is not more good done, by this negative way, than injury, because of neglect?" The answer, strangely enough, would seem to come appropriately from the pen of a great medical wit and teacher of anatomy who was not a homeopath—I mean Dr. Oliver Wendell Holmes—who once said that it would be a good thing for humanity if all the medicines in the world were dumped into the sea, only to add the regretful after-thought, that that, though, would be a bad thing for the fishes.

There is point to these sayings, not because they are altogether true, but because they are largely so. Perfection should ever be our aim, even though unattainable. Whatever diverts us from this goal should be eliminated, and all that tends toward it embraced and enlarged. Thus, homeopathic practice taught us to give medicines in as unobjectionable a

form as it can be done. But there are patients, many of them—and these by no means exclusively limited to the ignorant—who can not credit potency in a remedial agent unless it offends at least one, but, better still, several of the senses. These may be said to have atavistic leanings toward their ancestry of the middle ages, when doctors gave variously prepared reptiles and insects, conjoined with horrible exorcisms, for the cure of disease and the expulsion of evil spirits.

The other major reason for the Homeopathist's rapid development of a practice is, his keeping his knowledge of his remedies to himself. When a prescription is handed to a patient, you part with your knowledge of how to cure the symptoms for the relief of which you are consulted. This patient may —and he often does—yield this prescription to the pharmacist. He can, and usually does, renew the medicine on this one order of the doctor as often as he is willing to pay the dispenser for it; and it remains good for himself or his friends ever afterward. The druggist always gets his profit; the doctor, though, is—foolish.

The homeopathist makes no such blunder, except when he is silly enough to imitate his unrestricted professional brother in also writing a prescription, say, for belladonna 6*x*, hepar 10*x*, or nux 3*x*. Some do this. And with what result? Of course, ultimate injury to the patient, because of neglect through self-prescribing of something that is nothing, and loss of income to the prescriber; only the dispenser having added profits. But the rule with the Homeopathist is, to give the medicine. When it is used up, the patient returns to him for additional advice, instead of to the druggist for more—milk-sugar. If benefited, that patient can do nothing else for a suffering friend than to send him to the same doctor for advice; which is better in every way than sending him to the druggist for the same medicine.

Do not suppose that I am actuated entirely by selfish or pecuniary motives, for I am not; and, yet, I am free to say that I have a perfect right to be so influenced, although in this instance the patient's and physician's interests are alike best subserved by the practice recommended. Thus, one of the worst evils that can befall an individual is, to be making medical introspections of himself, trying to diagnose his own case, becoming a morbid nuisance to all with whom he comes in contact, and eventually substituting a highly undesirable morbid mental condition for some simple physical disturbance. Should it not go thus far, the habit grows, and, while no one might object to such a fool hurrying himself to his grave by his lack of sense, the trouble is that he extends his meddlesomeness to helpless children. We have all seen his pernicious work and have grieved and waxed warm over it, but to very little purpose.

Those of us who give prescriptions and otherwise proffer incomprehensible explanations of our work are primarily the real culprits in this matter. Try to realize this at the beginning of your career and act accordingly, if you wish to avoid much that is disagreeable to yourself as well as injurious to those who entrust their physical wellbeing to your care.

Pertinent Reasons for Self-Dispensing

Very many other reasons could be assigned in favor of the doctor dispensing his own medicines, but those given will, I trust, suffice. For instance, by giving your own medicines, you are certain that your patient is getting what you want him to have. The druggist is liable to substitute something else, either because he has not at hand what you order, or because he can use something similar that yields a greater profit.

Two prescriptions will cost the patient about as much as the charge of an office call. Most patients have very limited means. The pharmacist insists upon cash for his goods, and gets it. Ergo, the doctor does not get his fee at the time, but must wait for it. It is a deplorable fact that he ever after waits, and continues waiting for half of these fees. Even his heirs wait for them, also, but never get them. The pharmacist gets his fee, too, because of the psychologic fact that the patient's mind sees tangible material evidence of getting something for his money. He cannot see that the doctor's advice in his particular case has cost a cent, but he unconsciously recognizes that the medicine handed to him by the pharmacist represents an outlay of money. His mind grasps the one very self-evident truth, but balks at the other. So it is that, when the doctor supplies the medicine together with his advice, he has a more tangible claim upon what is in the patient's pocketbook, and consequently is more likely to get his fee, especially since none will have to be given to the pharmacist for prescriptions.

Night- and emergency-calls require prompt medication. It is absurd to write a prescription, to be filled at a pharmacy, in the dead of night, thereby necessitating a repetition of the night-call at the drugstore. In

my earlier days of practice, I also wrote prescriptions, and carried no drug but a morphine solution (Magendie's). This, with a pencil and prescription-pad, was my armamentarium! It soon became my custom then to tell the messenger to call up the pharmacist on the way back, so that he would be ready to compound my prescription with least delay. Is it any wonder that Homeopathists grew rapidly into practice against such competition?

The same argument that holds good for carrying more remedies than I did at night in that long ago applies with equal force to practice at all times. It is the physician's business to be as ready as he can to treat his patient promptly with reliable drugs. To do this, he must carry those medicines with him that are most necessary for immediate use, and also keep a suitable assortment at his office at all times.

Having settled, presumably with satisfaction to yourself, that it is much better for you and your patients that you dispense your own medicines, I will take up the matter of the best way in which this should be done.

Best Way in Which to Carry Medicines

Drugs come in the form of liquids, powder, pills, granules, compressed tablets, and tablet-triturates. You may have to make use of all these. As a general rule, the liquids are the cheaper, while the pills, tablets, and granules are the more convenient. The last are the most specific and compact. Assayed or tested fluid extracts are the most serviceable of the liquids because uniform and of definite strength and because they average greater in strength (effectiveness) per ounce for the money-cost. But fluid extracts are not always desirable or attainable. Thus, I use the tincture of aconite and the fluid extract of colchicum.

You should avoid buying, or at least dispensing, remedies in a form known to patients. For instance, people are all acquainted with the gelatine-coated oval-shaped 2-grain quinine pills. Never dispense these or any looking like them. While often you may do so safely, there are many times when it will be your undoing. If you give quinine this way, your patient will know it; if you do not, but give him such pills, he will think them quinine, for his experience makes him associate quinine with that form and kind of pill. For the same reason, do not give a compound cathartic pill black, glossy or white-coated. It is better to give it as a compressed tablet, chocolate-covered or not. Also bear in mind that there are many persons who look upon all pills, tablets or granules as intended to "open the bowel." Watch for this and correct such erroneous impression.

You will be obliged to have some kind of receptacle in which to dispense your medicines. Bottles are needed for the liquids, and are most desirable for deliquescent drugs. Tablets of nux vomica put up with licorice will get moist, sticky, and run together in hot weather, when they are kept in paper or boxes, but remain perfectly dry in corked bottles. The same is true of brown-mixture tablets, also of those of extract of cascara sagrada. Others rapidly absorb moisture from the air, such as the bromide or iodide of potassium. I usually limit the supply to short 1- and 2-dram homeopathic vials.

For powders, tablets, pills or any form of dry medicines, I use small envelopes, a little less than 2×3 inches. This satisfies my needs, more especially since I am accustomed to them. Some physicians use cartons, others prefer small round or square boxes.

I enclose a sample of the labels I put upon the bottles. You see that each contains my name, address, and office hours. I also have a printed form with blank lines. These are self-explanatory. It is best to adopt that form that best suits your own ideas, though your card should appear on all. The bottle-label should be gummed. And, yet, it is an open question with me whether or not it is of much advantage to have your "card" on your medicine-containers, for I find that most patients do not notice anything upon the label except the instructions. It is best, however, to observe the rule, as the cost is trifling.

As you are well aware, there are cases that are best left to nature. Here you should use suggestive therapeutics. These people need no medicine To tell them so is, to do them no good, and will drive them to someone else; thus not only injuring yourself but possibly letting them drift to someone, unscrupulous or incompetent, who will mulct and injure them. These patients require the use of the placebo. It is desirable that something of this kind should be on hand in variety, so that the supposed remedy may be changed to meet the psychologic demands of the patient. For this reason, blank tablets, differently colored, are sold at a reasonable price, or you can have something of your own devising and less costly always ready at hand.

(To be continued.)

A Problem in Digestion

By William F. Waugh, A. M., M. D., Chicago, Illinois

A LADY in her thirties, married happily, in excellent health, except that she suffers from gastric troubles of indefinite nature, informs me that she dislikes oysters and salt and smoked fish; also that she believes lemons, stewed tomatoes, fresh pork, grape-juice, and pineapple disagree with her. Unlike most women, she does not suffer from constipation.

Our likes, and especially our dislikes, as to various articles of food are largely the result of habit. Few persons care for strange and unusual foods the first time they taste them. In the tropics, there is a maxim that one must eat any new food three times before deciding whether he likes it. Still, sometimes the dislike for a food is owing to a difficulty in digesting it.

Many persons find salt mackerel distasteful: the fat is liable to disagree, and an unpleasant taste returns to the mouth after eating this fish. The same is true as to smoked fish. Scarcely anybody cares for oysters the first time he tastes them. There is nothing significant about the lady's distaste for these articles.

Since the citric acid of lemons and the oxalic acid of tomatoes seem to disagree with her, it might be thought that she has hyperacidity, but the laboratory tests fail to show this; also, she has no disability of digestion as regards pickles or fresh fruits. Fresh pork may disagree, as she asserts, but she can eat cheese, beans, peas, ham, bacon; besides, the cruder vegetables, such as squash, carrots, and onions, fats and oils, starches, and sweets.

There is no evidence here of any form of indigestion; the lady's stomach and bowels are normal and capable of functioning normally. But they don't. We must look to the psychic realm for an explanation.

The woman is married, but childless. Her husband goes to a neighboring town to his office in the early morning, and she is alone until late evening. They are not rich, and both have imbibed the current notions about the wisdom of curtailing food and eating moderately. They have drawn their diet down until a trifle seems to suffice; and an appetite would scare either. Besides, they are early and enthusiastic devotees of a cult that teaches them that, if they say they have dined, the needs of the system are as well supplied as if a real dinner lined their stomachs. Under these conditions, the power of the digestive system is being impaired, and already these undefined and scarcely describable discomforts are telling the story of a deficient nutritive supply to the vital organs.

Just here a new peril is encountered. A friend, correctly diagnosing the need of more nourishment, most unskilfully meets it by advising the two to take sherry and raw eggs. They do so and feel that immediate benefit that is to be expected. Result: the alcohol devil is introduced into the household under the guise of an innocent and helpful friend.

Very carefully and circumspectly the case is explained, the temporary improvement from wine and the certain injury to the digestion to follow are made plain, without rant or preaching. The most difficult as well as the most imperative duty in such cases is the psychic management.

The lady was directed to restore her failing digestion by means of exercise. She was told to eat at every meal a morsel of some one of the foods she disliked or that disagreed; limiting the quantity to what would not disagree. If she could not take a teaspoonful of lemon-juice without suffering, she was to take ten drops or five drops, but to take some of it every day, increasing the amounts as she learned to manage it without difficulty. So as to all the other articles in the list—she was to train her palate to like them and her stomach to digest them.

The wine-and-egg was replaced by malted milk with the egg shaken into it; a most palatable and quickly utilized food. This was directed to be taken in the middle of the fore- and the afternoon, and again at bedtime.

The exact quantity of each food taken was laid down with care; and the lady found considerable time taken up with weighings and measurements, which gave her needed occupation. The use of a variety of foods insured a larger aggregate supply.

Immediate benefit followed; the strength increased and the appetite grew as the stomach was given more to do and was supplied with more and richer blood for its use and its nutrition. The dislikes moderated, the

digestive powers extended to the erstwhile taboo articles—and, yet, the main trouble had not been touched.

The remedy was found at a city hospital—a boy baby, whose mother could not care for him. He was adopted. Henceforth the lady had no time to waste imagining troubles for herself. Her life was filled and rounded as only a baby can, and in the cares and joys of motherhood, even though vicarious, her own ailments disappeared.

What is there in this simple case to merit reporting? Little or nothing, perhaps; only that a serious digestive disease was taken in the early stages and cured before it became incurable, and the social conditions back of it were recognized and remedied. Possibly it might have been better to wait until the disease had developed and the array of gastric paraphernalia and manipulations devised by Turck and others became necessary. But I have described it as an instance of the work cut out for the doctor who undertakes to follow the plan I have suggested, to be the family advisor and prevent disease. Taken in their incipiency, many of the maladies encountered are easily stopped; let them develop, and they are like a conflagration.

Unshackling the Insane

By Edwin F. Bowers, M. D., New York City

EDITORIAL NOTE.—This is not a "scientific" article, meaning that it is not a dry-as-dust discussion, couched in the abstruse language of science. It is a popular article—one that any intelligent man can understand. More important, it is an appeal for good sense and human sympathy in dealing with a class of unfortunates whom we understand too little.

A SMALL engine, to which was attached a solitary baggage-car, tooted a sharp warning and, with a clatter and a shrill screech of the brakes, came to a standstill before the station of Bedburg, Rhenish Prussia. Immediately it was surrounded by a swarm of workmen, who proceeded to unload bricks, lumber, window-frames, and other building-material, together with barrows and tools of various kind. These they trundled and drayed to a two-story brick and frame building in process of construction—one of many that occupied a considerable area of the little town.

Commonplace enough; hardly of sufficient importance to warrant a second glance—excepting that engine-driver, trainmen, and the sturdy crew of laborers were lunatics. That is, we, here, should call them "lunatics." Over there, they were referred to as "patients." For, in Bedburg those people are not "crazy"; the word *verrueckt* never is heard; they merely are "sick." And, they are not "confined," they are "treated." Those who are not homicidal or acutely maniacal (that large body of the mentally unfit who merely are victims of delusions or hallucinations, paresis, dementia præcox, alcoholism or melancholia) are accorded as much freedom as the out-patients in an ordinary hospital.

Simply because they are ill mentally, instead of physically, is not considered sufficient reason for treating them as convicts. The padded cell, the manacles, the straightjacket, the brutal repression by brutal guards have been replaced by the application of the Golden Rule.

The German Way of Restoring the Mentally Sick

To help bring about a return to sanity, these individuals are treated as though they were sane. For the German doctors have proved by experience that the function of an insane-asylum is to treat and cure patients; not merely to provide a secure place for their confinement.

This is in decided contrast to the methods employed in most of the modern European institutions, as well as in many of our own land. The "trust him" practices of "Daddy" Fuller, Judge Ben Lindsley, Sheriff Frank Tracy, and Governor West again have been vindicated. They have been shown to apply also to those in whom the white light of reason no longer burns clear and bright; to those mental derelicts who are drifting without rudder or compass on the uncharted seas of brain-incompetency.

At Bedburg, wholesome out-of-doors occupation, without restraint of any kind, takes the place of the padded cell and the straightjacket. It would be easy for any of the inmates to escape. No guards are there to prevent them. But, so comfortable are they that "freedom" consists in coming "home" regularly to wholesome meals and their own

quiet beds and nightly hanging their hats upon the same hook.

The Prussian alienists are translating Horace into everyday experience: *Mens sana in corpore sano*—a sound mind in a sound body—has, to them a tangible significance. Blue sky, bright sunlight, pure air, the odor of fresh loam, and the wellbeing that comes from working with growing things and from contact with the magnetically charged earth, all these are essentials of the "course." Upon these they place their greatest reliance in bringing balm to hurt minds.

As an essential part of the "cure," this home for the mentally unbalanced operates a model farm and raises all the requisite vegetables, fruits, and garden-stuff. A complete dairy and creamery is run by the women inmates, who also do all the kitchenwork of the institution. They have their own ice-plant, bakeries, water-works, tailoring- and dress-making-establishments, workshop, slaughter-house, and laundry. All the work is done by patients, under competent supervision.

These shops differ from most others, in that all work is voluntary. Any workman may "knock off and call it a day" whenever he or she feels like quitting. Thus, they enjoy some advantages that are not vouchsafed to their sane brothers and sisters "on the outside."

Every reasonable opportunity for healthful and cheering amusement also is afforded. Games of every kind are played, and among the 2500 "residents" are many who excel in even such difficult games as chess or skat. Anyone familiar with the latter complicated forms of recreation will appreciate their value for mental discipline.

Both during work and play, the patients are under constant observation for the discovery of changes in their symptoms in the progress of their varied disorders. Careful records are kept, and are at the disposal of visiting alienists, and every possible effort is made to obtain the best and most authoritative advice.

Within the last few years this method has yielded such excellent results that many of the patients who, at their arrival, were "full of sound and fury," can be discharged after but a few months' treatment. The restorative influences of unlimited fresh air, good food, regular habits, and unremitting attention to the physical by some of the world's most famous psychiatrists are working wonders in knitting together the threads of the raveled mentality of these unfortunate people.

In Gheel, Belgium, before war rode roughshod over it, there was another institution of the same general character as the one located at Bedburg. Here, the *malades* (patients) were housed in a colony, consisting of groups of cottages, each of which sheltered not more than three occupants. The latter were permitted absolute freedom—even more marked than at Bedburg. They were encountered everywhere in the little town. If during conversation they refrained from parading their particular hobbies, one often had difficulty in distinguishing between them and the town-residents. Confinement was resorted to only as a last extremity. It was asserted that, on an average, rarely more than 60 out of nearly 2000 ever were restrained at any time. Fully 20 percent of the patients admitted to this colony (being twice as many as in any other institution of its kind in existence) yearly were discharged as cured.

An American Experiment

In our own country, Doctor Kelsey, professor of sociology at the University of Pennsylvania, has pointed out fundamental fallacies in methods of asylum treatment. So, when Blankenburg was mayor of Philadelphia, an investigation of the municipal hospital for the insane was instituted, and it developed that the patients there were herded together like cattle and that their mental sickness was being aggravated by this fearful congestion.

It became a question which the board of health was called upon to solve. Mr. Wilson, assistant director of the Department of Health and Charities, immediately adopted and put into practical operation the system obtaining at Bedburg and Gheel. He secured a thousand acres of fertile land at Byberry (a suburb of Philadelphia), reconstructing at slight expense the structures upon it. The surroundings were exceptionally healthful, Wilson brought out a number of the mildly affected inmates of the municipal asylum and organized a colony. The patients, working under adequate supervision, painted, remodeled, and repaired the somewhat dilapidated buildings, and quietly settled down in community-houses, under the supervision of a man and his wife—the latter assuming the duties of matron.

Each colony at present consists of about 25 men, mildly insane, but harmless and willing to make themselves generally useful; all eager for a share in the responsibilities and duties of farm-life. From sullen, discontented prisoners, herded in an unsanitary

institution, with an outlook grim and saturnine, they are developing into responsible citizens of one of the most unique settlements in America.

Almost immediately after their admittance to Byberry Farm a decided change for the better seemed to take place in the physical, moral, and mental status of these patients. The symptoms of mental derangement that had led to their committal to the asylum gradually disappeared. Agreeable and healthful work in the open air afforded them proper exercise. Amusements diverted their minds and wholesome interest in an active life, of which they felt they were an important integral part, induced a radical betterment in their mental conditions.

Dr. Edward M. McLane, physician in charge, in commenting upon this improvement, writes:

"The health of the men in the colonies is far better than that of the patients in the institution. The farmers are contented. They gradually learn to forget their grievances and manias under the influence of liberty, work, sleep, and recreation. Their health is improved, and this has its effect upon their mental condition. We have little or no trouble with those that have been placed in the cottages under the supervision of the matron and her husband. They are tractable and eager to remain where they are. Many of them actually object to returning home, when they are declared cured. The percentage of discharges is infinitely higher than at institutions, and, whereas the runaways from institutions are as many as four a day, we have only rarely a case of a man attempting to escape.

The "colonists" are not restricted. They are guarded only in a general way, and are given a free hand as to their choice of work. No attempt is made to enforce any definite task. There is no need for it. Each is glad to help "keep the ball arolling." The cultivation of the farm, and the labor entailed thereby, is simply a part of a beneficent method of cure.

When they are first admitted, it is difficult to teach the "guests" to work. But, after they have comprehended what is expected of them, they take pride in exhibiting proficiency. The men raise practically all they consume, in the line of eggs, ducks, milk, fresh vegetables, and other farm-produce, and also do all chores about the house, barns, and fields. As a consequence, the cost of maintaining the colony is brought down to a minimum.

Philadelphia's experiment at Byberry has demonstrated the efficiency as well as—and this is perhaps even more interesting to state and city governments groaning under the steadily increasing burden of asylum support—the economy of colony treatment for the mentally defective.

The general adoption of this plan promises a solution of the pressing problem of dealing with the insane. Those who might be incurable under methods of restraint are improved; those who are curable get well more quickly; while, moreover, they virtually support themselves during the process.

The Promise of the Future

This experience certainly must inaugurate a new era, and it will appeal to the humanitarian no less than to the pocketbook side of our interest.

Twenty or twenty-five years ago, these ideas and methods were so novel—so unusual—that their promulgators were regarded as themselves mildly tinctured with the maladies of their own patients. Now, time and experience have justified the pioneer innovator's splendid vision.

For, the nonrestraint treatment of the psychopaths is increasingly recognized as the one method capable of replacing their drear-souled despair by the bright dawn of a hope for eventual recovery—even though this hope as yet exists but for a small fraction of the cripple-minded.

We have looked upon the lunatic with dread and suspicious horror; now we may treat him with sympathy and intelligently directed kindness. The madhouse was a prison; now it may become a refuge. Time was when to be sent to an asylum was, in effect, equivalent to burial. In very fact, death were preferable to lingering through a miserable existence—every day of which an eternity of suspense to family and friends—ending only when they brought the broken body home.

But now—even though the percentage of actual cures is pitifully meager—comes to the insane the appreciation that, at least, humane treatment, kindly ministrations, and feasible creature-comforts are being vouchsafed. For the leaven of humanitarianism is working among us. Gradually we are realizing that asylum treatment merely reflects public sentiment. We are beginning to understand that a perpetual attitude of suspicion and distrust toward these unfortunates is most unwise, from even a purely selfish standpoint. We have found that it "pays"—

from the naked dollar-and-cents point of view—to adopt modern curative methods.

One influence which has contributed to hasten this consummation—although the movement has been afoot for many years—is the formation, in America, of the National Committee of Mental Hygiene, whose high object is the study and prevention of insanity and the betterment of the deviates, through propagating the principles of non-restraint. As the Committee itself states it:

"To work for the protection of the mental health of the public; to help raise the standard of care for those threatened with mental disorder or actually ill; to promote the study of mental disorders in all their forms and relations, and to disseminate knowledge concerning their causes, treatment, and prevention; to obtain from every source reliable data regarding conditions and methods of dealing with mental disorders; to enlist the aid of the federal government so far as may seem desirable; to coordinate existing agencies and help organize, in each state in the Union, a Society for Mental Hygiene."

The Testimony of One of Them

The nebulous doctrine of leniency and kindly treatment for the insane was—in certain of the more backward states—crystallized into a moving, vital force by one who himself had gone through the deep waters of mental illness, eventually to find safe footing once more upon the solid rock of sanity.

Mr. Clifford W. Beers, a Yale man, who had the misfortune to become unbalanced in a manner necessitating his confinement for three years, may be said to be the instigator of the movement in America; and he has related his experiences, while sequestered, in a graphic biography that will take high place, not alone as a piece of literature, but for the constructive value of its sound, practical suggestions. In this book, which bears the title, "A Mind That Found Itself," Mr. Beers details the methods of "restraint" experienced by him, in a manner which, if even the tithe of what he relates be true, must bring the blush of shame to the cheeks of his former attendants.

Thus, for instance, Mr. Beers describes most vividly the use of the "muff" of stout canvas—divided into compartments for either hand—the wrists being afterward locked together by manacles.

He shocks us with a recital of the horrors of the "camisole," a type of straightjacket reaching from neck to waist and laced tightly behind. The sleeves are closed at the hands and to the end of each is attached a heavy cord. These are securely fastened so as to bring the arms in a folded position across the chest. The lacing frequently is so tight as to constrict the proper expansion of the lungs, and the torture of many consecutive days of "air-hunger," while the jacket is worn, may well be imagined. It seems quite plausible that the soothing effects of this "cure" upon a highly excited nervous organism are chiefly conspicuous by their absence. The muffs and camisoles are used, not because they are more effective, but because they are "economical." For a pair of "mitts" or a straightjacket may take the place or two or three guards. The account of solitary confinements in a padded cell are too revolting to publish. On our heads be the shame for maintaining such unspeakable styes.

Cruel Means of Restraint

Also, according to the testimony given before the Congressional Committee which investigated the Government Hospital for the Insane at Washington, D. C., untrained attendants seemed prone to resort to the use of the wet towel as a sort of garrote. The most refractory patient readily succumbed to this form of "persuasion."

Of the "kneeing"—which consists of gouging the breath out of an inmate by the use of the knee—the beating, choking, cruel, and inhuman treatment of the insane in some asylums, perhaps the less here said the better.

Those familiar with Charles Reade's "Hard Cash" may remember that, in the controversy following the publication of this epoch-marking novel, the author proved that the ribs of insane patients often were broken by brutal keepers with a fiendish skill and devilish dexterity. That similar outrages sometimes are being perpetrated in at least fourteen states of our Union, demonstrates that the National Committee for Mental Hygiene has adequate reason for existence. The civilizing vaccine may have to be injected with no light hand before these ulcers of medievalism heal, and become a thing of the barbarous past.

And, lest it be contended that these iniquities no longer exist in America, remember that Dr. Thomas W. Salmon, director of special studies of the National Committee for Mental Hygiene, says that, "whereas the care of the insane in a few enlightened states is a matter of just pride, there is not a single

condition which existed in the early period of neglect and abuse which does not exist today in some American community."

Dr. Lewellys F. Barker, of Johns Hopkins University, has epigrammatically expressed the intent of the Association to be, "to secure human brains so naturally endowed and so nurtured that people will think better, feel better, and act better than they do now."

Another matter of criticism in asylum treatment is, the improper classification of the demented. It is relatively as unfair to confine the mildly insane among madmen as it is to immure the sane among the insane.

And, incidentally, the employment of "chemical treatment" is condemned. This restraint consists in the use (or abuse) of temporarily paralyzing drugs—hyoscine being the principal "remedy" employed. By its use, obstreperous and troublesome patients are rendered unconscious, and kept so for hours at a time—perhaps, at intervals, even for days or weeks. Obviously, this injures the recuperative powers of brain and body and greatly diminishes the chances of ultimate recovery.

The Better Way

Hence, in our model hospitals, instead of employing mechanical and medicinal restraint, it is now the custom to substitute the continuous warm bath, into which an excited patient may be placed and kept for hours—or even for a day or two, if necessary, until his excitability gives way to a fair degree of repose. A canvas hammock with a rubber air-pillow is swung in a large bath-tub into which the warm water continually flows, maintaining an even temperature. Almost without exception, the patients enjoy this experience. The bath acts by equalizing the circulation of the blood, relieving congestion in the brain or its coverings (meninges), and drawing through the pores accumulated toxins that irritate the nerve-centers.

A normal human being constantly generates poisons—from the breaking down of cell-tissue (katabolism). If the pores were sealed with some impermeable substance and thus this most important of the four avenues of excretion cut off, it is believed that a person would die within forty minutes, killed by his own products of decay.

In the excited insane, cell destruction unquestionably is much more rapid than in normal beings (if we except athletes during their most violent paroxysms). The relation existing between the bath and toxic elimination, therefore, is quite obvious. In fact, the tepid bath might be decidedly useful in calming hysterical women and nervous, fretful children, were it resorted to more generally in our households.

The total lack of that atmosphere of kindness so necessary to the wellbeing of the sane (doubly essential to the restoration of the unbalanced mind) is emphasized by Mr. Beers. He says, and truly, that what the insane need most of all are "friends." The development and general adoption of the system of non-restraint are providing these friends, by the immutable principle that "as a man thinketh in his heart, so is he." In other words, one's acts are bound to shape themselves automatically to one's thoughts.

Hospitals—Not "Madhouses"

This is interestingly reflected in the elimination of the "suggestive" influence of words. The old terms "lunatic-asylum," "insane-hospital," and "madhouse" are giving way to the simple and hopeful-sounding "state hospital." The words "insane," and "lunatic" do not even appear upon the stationery of modern asylums.

Mental alienation is increasing. The reason is, that both Bacchus and Venus are more assiduously worshipped than heretofore. Also, cocaine, morphine, caffeine, acetanilid, and other habit-forming drugs are abused more regularly and persistently. This matter is now receiving world-wide attention, and regulation of the mottled traffic bids fair to bear fruit eventually.

The time may come when the hope of recovery can be entertained from forms of insanity that now defy all attempts to cure. But that time, so far as human vision perceives, lies in the far-distant future.

As favoring recovery, alienists lay particular stress upon the value of an early diagnosis. One of the chief aims of the "Society for Mental Hygiene" is, to familiarize physicians and the public with a knowledge of the premonitory symptoms of mental involvement, in order that immediate treatment may be instituted. Early recognition of mental disease has a more profound bearing upon a successful outcome than is the case even in physical conditions, cancer or tuberculosis, for example.

It is hopeful, however, to know that all hereditary insanity can be prevented. Virtually every alienist of any repute agrees that to prevent the insane and feebleminded from becoming parents would depopulate the asylums. We are in command of a sure, painless, humane remedy—whenever the public signifies that it is ready to accept it.

However, there is no specific for insanity after it has developed. All that any system of treatment may hope to accomplish is, to give nature a chance to restore normality, by surrounding the patient with the best attainable conditions. Cure depends upon care.

Happily, the horrors which Hogarth has so graphically depicted are being ameliorated and abolished in our asylums. While there still is much to remedy, were Philippe Pinel, Benjamin Rush, William Tuke, Gardiner Hill, John Conolly, and the great fathers of modern insane-treatment to come back and view the progress that has been made, they could not be otherwise than highly gratified.

Pending such time as a specific physical cause for the curable forms of mania shall be found, humane methods bid fair to gain the largest measure of success. It has been a noble and inspiring advance, and the movement should appeal to every living man and woman. For, we all are potentially capable of achieving insanity.

In that event, we could profit by the reforms which our own influence had helped to bring about. This would be "casting one's bread upon the waters"—in its completest meaning.

The Wax-Man Affair

Chapter Two in "Lens, Reagent & Co."

By B. G. R. Williams, M. D., Paris, Illinois

A WELL-WRITTEN detective story makes intensely interesting reading. But, we all know that the methods detailed by the author are not those followed by our most successful detectives. The modern sleuth hunts down a criminal by a system which is about as follows:

Take, for example, the case of the theft of a noted diamond. First of all, a very close study is made, in the rogues' gallery, of all persons known to have stolen diamonds in the past, and especially of those who have used similar methods. Any of these serving sentences at the time are, of course, excused from suspicion; the whereabouts and present habits of the others, however, are carefully investigated. At length, a certain number of suspects are corralled. He who can promptly prove an alibi is forthwith released. Others are held for a more thorough examination; that is to say, they are held (for experience has shown the advisability of this) until they can make it appear that they probably are innocent, or, if not, the state will endeavor to secure enough evidence upon which to prosecute.

Essentially similar methods are employed by the diagnostician, or at least by most diagnosticians. Now and then someone tries to write a textbook showing that this is not the proper procedure, but that, rather, our diagnoses should be reached by a very close study of symptoms, signs, and laboratory-finds; and that, if this study be close enough, there can result but one diagnosis in the end. Somehow, though, most of us drift back again to the old method, which appears to be the most practical, after all.

For example, a patient presents himself for study. This man is pale; in fact, he is very pale. His appearance is that of wax and it is evident that his condition is serious. He is languid, short of breath, dizzy at times, cannot work, complains of diarrhea, nausea, and of palpitation of the heart. Now, this may be a case either of—

"Hold!" cries our romantic diagnostician. "Suppose that we begin with symptoms and work up to our diagnosis." Perhaps this may be done. So, we place the matter in the care of Hand, Ear & Co. and instruct them to proceed by this plan.

The patient is stripped. There is but little or no emaciation. There may be a peculiar lemon tint of the skin, which latter may seem to be flabby, at points, edematous. A very close observer will notice some moles on the chest. The scleras are pearly. Otherwise the physical examination is negative, save for the fact that a suspicious heart murmur is, finally, defined as hemic. Such is the evidence. The patient now may be given treatment or else turned over to the laboratory-worker, for further study.

As a matter of fact, I recall such a case, in which the former choice was made. "For," perhaps reasoned the physician, "here are the typical symptoms of a pernicious anemia. Now, if it were a nephritis (note that such a doctor must, invariably, fall back upon the plan of eliminating diseases having diagnostic features in common), the eyelids would

be edematous, the patient would be affected mentally or would have observed alterations in his urine. No, indeed! Nor can it be a cancer of the stomach, for, there is neither pain nor emaciation. Leukemia is impossible, because his spleen is not enlarged. As to other possible diagnoses—well, this patient is in a bad condition and cannot live, anyhow. I don't take any stock in this laboratory foolishness; at any rate, I can get by with this diagnosis about as well as any other."

However, what happened in this case was as follows: Another physician was called in. (Curses from No. 1.) Now, this second physician had never been called into that family before, consequently wanted to make good. (He should have been more ethical!) He likewise believed the diagnosis of pernicious anemia to be correct, but took no chances. He insisted upon a blood and urine analysis. He knew that, while neither might help, the gamble was good. Thus, it happened to become the pleasure of the writer of this article to make those examinations. The blood of this patient indicated a secondary anemia, but, the urine—words are unnecessary. The patient with the "pernicious anemia" is very much alive today. When the good people of this vicinity gather at the Sunday-school picnic or the pound-party for the preacher, this man tells the old story of how Doctor No. 1 very nearly killed him, but thanks to Doctor No. 2 he still is alive.

All of which has not made a hit with No. 1. These examinations were made without any knowledge upon the part of the laboratory-worker as to the points at issue. Whether this was known by physician No. 1, I never have been told. How did he take it? If he had sat as judge upon my case, he would not have let me off with simple hanging: the sentence would have been, death by torture. Nevertheless, eventually he must have seen the matter in the right light, inasmuch as today he is one of the most enthusiastic believers in the laboratory aids.

Let us return to our theoretical case. Lens, Reagent & Co. begin with the supposition, "Now, this may be a case of—"

However, we must call a halt upon this method of procedure and reach our diagnosis by synthesis rather than by the elimination of possibilities.

The urine shows, perhaps, an occasional hyalin cast or even a granular cast in a droplet of the sediment. A very faint trace of serum-albumin may be detected by the most sensitive clinical tests. But, is this a case of nephritis? The urinary solids approximate normal, there are no very great variations in the 24-hours' quantity, and a careful search reveals no kidney-cells. Nevertheless, this man is very, very pale and weak. No, the diagnosis of nephritis will not do. Perhaps we may recognize some nephrosis (kidney injury); but this is, certainly, secondary to more vicious diseases of other organs. The urine is then attacked from other angles. There is some indican, but no copremia could account for symptoms so serious as those of this subject. There is no urochromogen, no glucose, no bilirubin, no diacetic acid, no urobilinogen, nothing else of importance. Plainly the urine does not aid us in our diagnosis, although other tests conducted later may do so.

What of the blood? The color-index and red-cell count are both below normal, and the reduction is in about the same proportion. In other words, we have both an anemia and a hemoglobinemia. A spread rules out leukemia. Now let us study the red cells. These in the main are normocytes. That is to say, the greater number of cells are neither increased not decreased in size. This is not a large-cell anemia, and the point is important, for, a few microcytes may have been observed. The red cells take the stain to about the same concentration—there is no polychromatophilia. A few nucleated reds are found, yet, they are normoblasts rather than megaloblasts. Poikilocytosis is marked. For all this, we must finally acknowledge that this is a secondary anemia.

Then, to what condition is this anemia secondary? It may be a toxic anemia. It certainly is not resultant upon hemorrhage, since this patient has not bled at the nose, stomach, gums, or lungs. Our doctors in the South might suspect ankylostomiasis and set about to examine the stools for the characteristic segmenting ova. Parenthetically I may add that I have found them in Illinois. At least, here is a clew, and Lens, Reagent & Co. do make an examination of the stools. They do not find worms, still, they do find traces of blood.

Such occult blood may, of course, appear either in a severe nephritis or in an essential anemia. Such a finding, however, always makes the surgeon sit up and take notice.

Before telling the reader that our theoretical case was truly an actual one, it may be necessary at this point to answer some criticisms.

"If this were a case of peptic or duodenal ulcer," suggests our critic, "there would have been some epigastric pain, symptoms of

hyperchlorhydria, also some hematemesis." The suggestion is a good one, and, according to the texts, cannot well be refuted. Pain and vomiting need not be present, still, hyperacidity invariably is present. It is true, this symptom may have been overlooked in the history taking. As a matter of fact, this was not a case of benign ulcer, but eventual operation revealed a belly filled with malignant daughter-tumors.

"But where was the cachexia?" persists our critic. I do not know. But there was no cachexia. Moreover, it may interest the reader to learn that the patient died within two weeks after the operation, showing practically no sign of cachexia, but the symptoms of a severe anemia.

Let us go back a bit before taking up the operation. This anemic person began to complain of bloating and took to his bed. Examination showed a temperature of 101 degrees, rarely or never dropping to normal. Moreover, the first laboratory examinations that actually were conducted with respect to this patient were those for typhoid fever. When it became evident that typhoid fever could not be the diagnosis, we examined the blood and the urine. Finally the occult blood in the stools called surgeons into consultation, Exploratory operation was advised and accepted.

Briefly, therefore, this patient had been affected with a malignant growth of the bowels that had given no sign save that of a severe anemia. The onset of severe symptoms was sudden and puzzling, and they certainly were not those expected to be encountered in cancer.

"Well," sighs Old Fogy, "I fail to see where laboratory methods and a pretty diagnosis saved the patient's life. He died just as dead as if his ailment *had* been pernicious anemia."

This observation is an old one upon the part of the slipshod worker, and we must be charitable with our logician of the Devonian Age. Granted that in this instance our friend could have ruled out nephritis, hookworm, benign ulcer, tuberculosis, and so on (but which he could not have done), he would have applied the very same methods in the next case, and the next one, and all the ones to follow.

And so he goes, depending upon luck, but terming it skill. Now and then he hits the diagnosis and then congratulates himself upon what a wonderful diagnostician he has become. Still, now and then he botches a case and wants to burn some laboratory-worker at the stake or feed him to the termites.

Think it over. In a coming communication, I shall present some more actual cases, to show the importance of the microscope and test tube in the field of diagnosis.

Next month: "The Lumbar Misery."

FORMS ARE CLOSED

By Mary Cabell Richardson

He did not die as men who struggle, hopeless, fall,
  But slipped into a dreamless sleep—and that was all.

He never saw the sordid, crushing strife—
  Happy in sunshine he taught that love is life,
And men are helped by homely, touching art,
  He held the key that ope'd the saddened heart.

To him mankind was good, nor measured rank nor station.
  "The devil e'en he did not hate, but wished his reformation."

The forms are closed! And thinning guards stand by the bier
  Of him who taught in sunshine and laughed away all fear!

Beauty in General

And the Tip of the Nose in Particular

By Ralph St. J. Perry, M. D., Minneapolis, Minnesota

DITORIAL NOTE.—Here we have another of Doctor Perry's interesting papers upon cosmetic surgery—one phase of it. The doctor is showing us how much can be done to make even the ugliest face passably attractive. This is a branch of surgery with which every physician should be familiar.

AGAIN the questions come to me, "What is your standard of beauty?" and "Do you set yourself up as an expert and a judge?" I say "again," because these questions have been thrust upon me many times during the thirty years I have been spreading the gospel

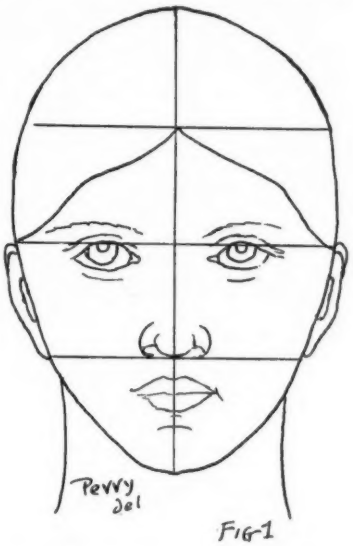


FIG 1

of beauty and endeavoring to correct nature's errors and to remedy the disfiguring sequelæ of disease and trauma. No, my dear friends, I am not posing as a dictator in matters esthetic, merely as an exponent; am not using standards which were established centuries before this generation was born, even at a time when you and I were minute portions of protoplasm in the graaffian follicles of some far-remote ancestress.

The most ancient works of art, happily rescued from prehistoric ruins, the products of the artists of ancient Greece and Rome, as also of those of the middle ages and of today, all show an adherence to the same ideals of proportion in the human figure. And, while these standards were, originally, established by a race of people living on a very small area of the earth's surface, and whose opportunities of observation and study were limited to their own circumscribed world, they, still, apply to all divisions of the Indo-European race as well as, in a great degree, to the Ethiopians and Mongolians.

George Santayana, in his "Sense of Beauty," says, "Beauty is pleasure regarded as the quality of a thing." It matters not what the thing—man or woman, bird, beast or flower, building or landscape, sky or sea, odor or sound, even an intangible thought—it may be capable of giving pleasure and, so, become "a thing of beauty and a joy forever." Pleasures which appeal to the senses of taste and touch are not usually described as "beautiful"; nevertheless, the descriptive terms might well be considered as synonymous therewith.

Monotony in the beautiful is relieved by the fact that races and individuals vary in their senses of pleasure and their ideals of beauty.

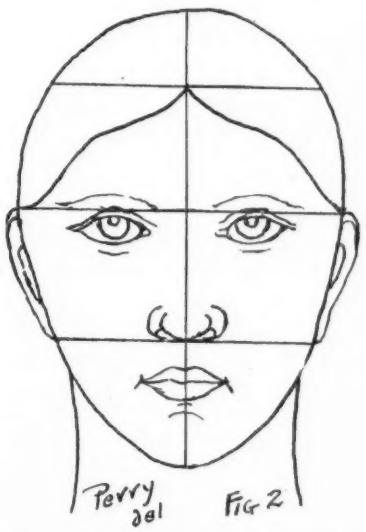


FIG 2

What appeals to one individual makes no impression upon some other person, and what one race regards with pleasure may be a matter of unconcern or even displeasure to some other. This dissimilarity of ideals and

diversity of tastes is what goes to make up the joy of living, for, somewhere among the heterogeneous products of nature each individual finds an affinity, and is happy.

Ideal Proportions of the Human Body

As to the proportions of the human body, as stated before, these have been studied and the discoveries collated, and all artists understand and use certain rules of proportion; which rules have been formulated from measurements of hundreds of works of art and

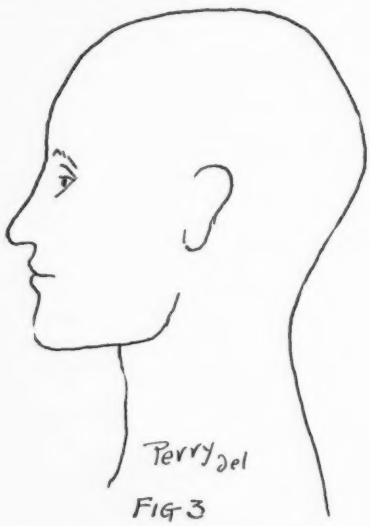


FIG 3

hundreds of thousands of human beings. The artist's conception of human proportions is the ideal, the composite of many individuals, and it may be said without hesitation that no one individual ever has conformed exactly to them.

In formulating these rules of proportions, it was found necessary to have some unit of measure that could be universally applied to all individuals, and that this unit should be within the individual himself; and after much study and measuring, it was discovered that all parts of the body were proportional to the head. As a result of this observation, artists divided the head into nine* equal parts, and each of these designated a unit. Thus, then, applying this unit to the other parts of the body, we get the artistic body, and this ideal human figure is equal to 8 heads in height, or 72 units, and is proportioned as follows: these data being complied from Marshall's "Rule of Proportion":

*The number nine entered largely into the religion and mythology of the ancients, and its use in this connection probably is due to these influences.

PROPORTIONS OF THE HUMAN BODY

[The unit of measure is 1-9 the distance from crown to chin.]

	Units, Male	Units, Female
Body (head and trunk)	36.5	37.5
Crown of head to chin	9	9
Chin to end of sternum	9	9
Neck—axial length	3	3.5
Sternum to crest of ilium	9	9
Crest to 1-2 unit below gluteal fold	9.5	10.5
Lower extremity	41	40
Thigh—from trochanter	18	18
Leg	14	14
Foot	9	8
Upper extremity	29.5	28
Arm	13	12.5
Forearm	9	8
Hand, including carpus	7.5	7.5
Total height (taken lying down)	72	72
Standing-height (stature in units)	67	67.5
Average height of 500,000 men in U. S. Civil-war recruits, inches	67.3	
Average height of recruits in British Army (in England), inches	67.3	
Average height of English women (source unknown), inches		63
Average height of 8000 Amhurst students (17 to 26 years of age), standing, inches	67.9	
Average height of 8000 Amhurst students (17 to 26 years of age), lying down, inches	68.1	
Average of Smith and Wellesley Colleges' students (female), inches		65
TRANSVERSE MEASUREMENTS		
Head	6.5	6.5
Face	6	6
Neck	4.5	4
Shoulders—deltoid prominences	18	17
Thorax, at nipples	13	10.5
Between nipples	9	8
Waist, at 10th rib	10	10
Pelvis, at crest of ilium	11	12.5
Intertrochanteric	13	14.5
ANTEROPOSTERIOR MEASUREMENTS		
Cranium	8	8
Occiput to tip of nose	9	9
Neck	5	4.5
Chest, deepest part at nipple	10.5	9.5
Waist, at 10th rib	8	8
Pelvis, at crest of ilium	11	11
Gluteal	9	10.5
Length of foot	10.5	9.5
FACIAL MEASUREMENTS		
Length of nose	2.5	2.5
Width of nose at root	0.85	0.85
Width of nose at nares	1.25	1.25
Height of tip of nose	1	1
Width of mouth	1.67	1.67
Thickness of mouth, two lips closed	0.833	0.833
Length of eye—palpebral slit	1.67	1.67
Width of eye—palpebral slit	0 833	0.833

	Units, Male	Units, Female
Distance between the eyes (inner canthi)	1.67	1.67
Length of ear	2.5	2.5
Ears, distance of projection from head, anterior aspect (or, "front elevation")	0.25	0.25
Ears, distance of projection from mastoid process, not to exceed	0.75	0.75

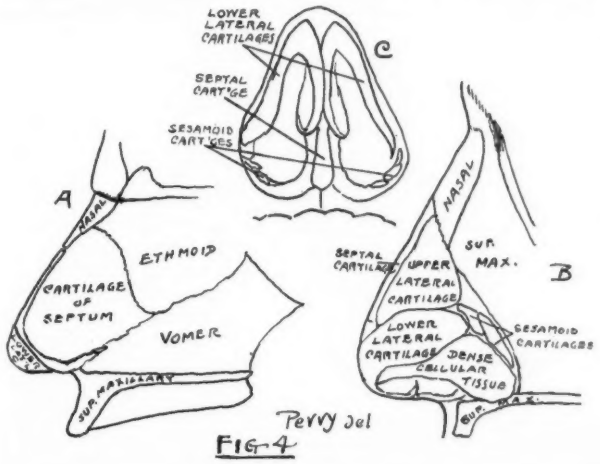


FIG. 4

Seeming inaccuracies in the table result from an overlapping of some of the measurements. The variations occurring between the artistic standards and actual proportions as found in life can be seen by comparing the measurements of height (stature) as shown in the table; but these are considered so insignificant that in general work a unit and an inch are regarded as virtually the same. In every individuval, there are variations and deviations, owing to muscular or osseous development or to pathological causes; in most persons, the right side is larger than the left.

The Divisions of the Head

Artists, as a rule, divide the head into 4 parts. Some make these parts equal, of 2.25 units each (Fig. 1), while some apportion the parts as shown in Figure 2. Measurements follow:

Crown to hair-line	1.5 units
Hair-line to top of ear	2.5 units
Top of ear to bottom of ear (and top of nose)	2.5 units
Tip of nose to point of chin	2.5 units

The head viewed laterally is ovoid (not oval) in shape (Figs. 1 and 2), with the smaller end at the chin, while viewed laterally it is more top-shaped (Fig. 3), with the point at the chin. Figures 1 and 2 give an idea of how the same face appears when drawn according to the two different proportions; the two heads are exactly the same size, but the features vary slightly in size and position, the face in Figure 2 being one unit longer than in Figure 1.

In studying the head and face, we must bear in mind Vitrurius' definition, to the effect that "proportion is the commensuration of the various constituent parts with the whole, in the existence of which symmetry is found to exist."

There are several minor "rules of proportion" concerning the head and face; namely:

"Shapeliness" an Essential to Beauty

Hair-line to chin equals 1-10 of the height.
Face and hand are equal in length.
Head and the span of thumb and second finger are of equal length.
The eye is divided into 3 equal parts, of which the iris is the central third.

Fig. 5. A case of rhinophyma.

The pupil of the eye is equidistant between crown and chin.
The width of the face is equal to 5 times the width of the eye.
The width of the eye (horizontal) is 2-3 the length of the nose.
The width of the mouth (horizontal) is 2-3 the length of the nose.
The width of the eye (vertical) is 1-3 the length of the nose.
The width of the mouth (vertical) is 1-3 the length of the nose.
The width of the nose at nares is 1-2 its length.
The height of the tip of nose is 2-5 of its length.
The nose is the unit of measure in the face, it being the only fixed feature.

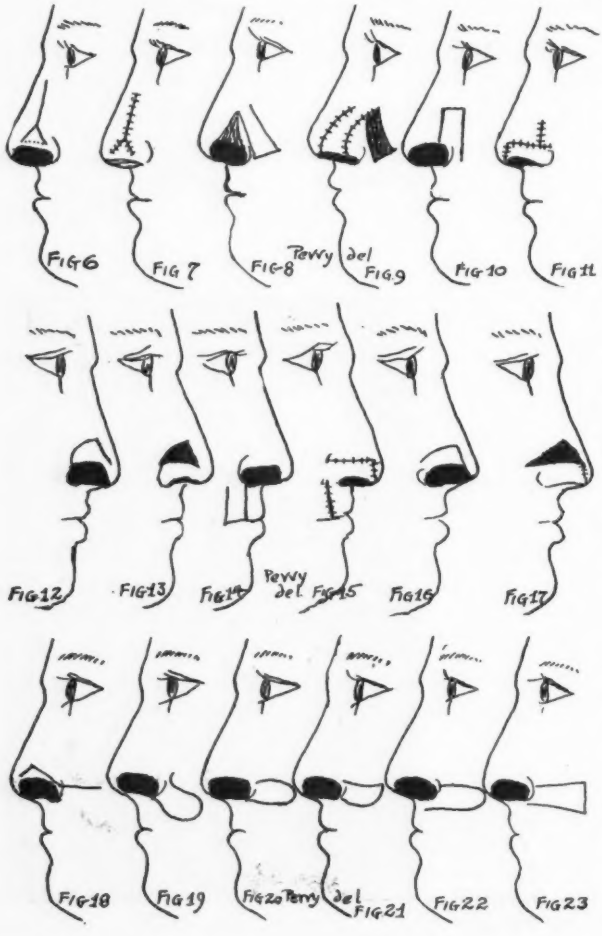
But, proportion alone does not constitute beauty; we must consider shapeliness of the parts, the curves and rounding out of angles, the location and extent of the various concavities and convexities of the several features, the color and texture of the skin and mucous membrane, the luster of the eye, the condition of the teeth, the color and growth of the hair, besides many other minutiæ which correlate to produce the seductive physiognomy.

It is the variations of these very minutiæ and the many possible combinations thereof that create the many types of beauty, thereby affording gratification and consolation to the many diversified tastes and ideals. The consideration of these details will have to be taken up in connection with the individual features.

Now, to isolate one feature:

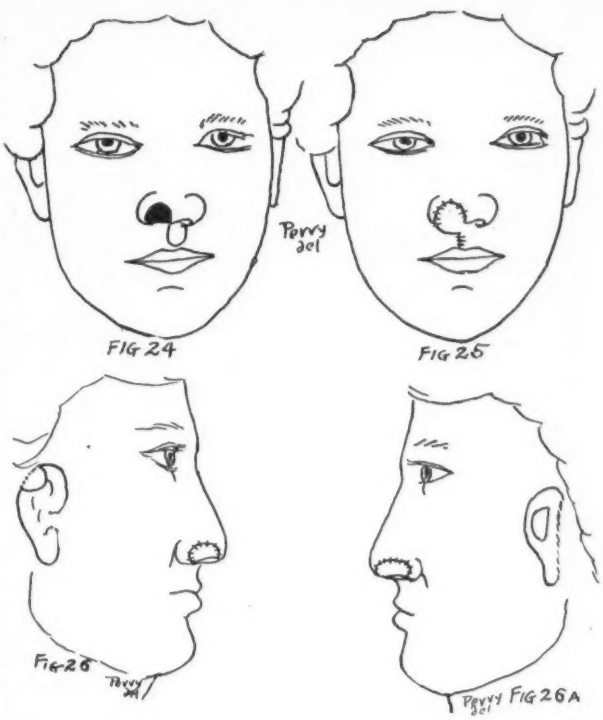
The Nose in Detail

The nose is the most conspicuous of the features going to make up the face, standing out, as it does, before all others, and the only one which cannot well be disguised or hidden from view. The mouth, chin, and jaws can be hidden (in the man) by the beard, the ears can be covered by the hair or head-covering, while the eyes may be squinted, tightly closed or shielded by colored glasses; all, to conceal or disguise those several features; but, the nose is the one feature which refuses to be denied the limelight. Being fixed and immobile, it is the part about which all others are grouped and by their relative positions give expression to the face. The nature and extent of a smile, the glance of an eye, in fact, all muscular actions of the face depend for their effectiveness upon their relations to the protruberant nose.



The nose of cosmetic surgery is the pyramidal external organ of olfaction, and is topographically divided into a root, bridge, and tip. Structurally, it is built up of the nasal bones, the nasal processes of the superior maxillary bones, a septal cartilage, several lateral cartilages, the perichon, dense cellular tissue, some fat and connective tissue, a few small muscles,

nerves and blood-vessels; the whole being covered with skin, which is thin and loosely attached over the root and bridge, but thicker and closely adherent over the tip, at which spot it is abundantly supplied with very distinct sebaceous follicles and, sometimes, a slight growth of hair. Upon the bulk, shape, and position of these elements depend the size and form of the nose, as a whole and in its parts. The component sketches of Figure 4 show the bones and cartilages which form the nasal framework.



Beautifying Unbeautiful Noses

The vast number of cosmetic operations relating to this particular organ requires that this paper be limited to those involving only the tip—the others to be taken up in some subsequent script.

The tip, or lobe, of the nose is that pliable portion extending beyond the septal cartilage, and includes the lower lateral cartilages, with their coverings and connecting tissues, the lower nares, the alæ, and the subseptum, that is, the lower end of the septum. It is the mobile part of the nose, and we find seven pairs of muscles that, respectively, dilate and compress the nares, elevate and depress the alæ, and, indirectly, depress the tip of the nose. These muscles in humans are almost rudimentary, although they do come into active play in certain sicknesses and in the expression of some mental conditions, such as the passions, for instance.

There are certain pathological conditions which seem to possess a certain selective affinity for the epidermis of the nasal lobe.

Rhinophyma is one associated with, and following, aggravated cases of acne rosacea, in which we find a chronic dilation of the blood-vessels, hypertrophy of the corium, with connective-tissue overgrowth, and enlargement of the sebaceous glands. (Fig. 5.) The remedy consists in excising the hypertrophied tissues with the knife or scissors and, so, reducing the bulk and shape to normal; although in some cases, if seen in their incipiency, fairly good results have been secured by scarifying the vessels, slitting them up with a Graefe's cataract-knife or by cauterizing with the electric needle.

Seborrhea, acne, and comedo frequently involve the tip of the nose and may be manifest as a "greasy nose" (often the reflex of some hepatic disorder), as a group of enlarged pores emitting copious quantities of oil or perhaps plugged with sebum and dirt, forming comedones and acne pustules. The treatment is the same as for these conditions occurring elsewhere.

Erythema simplex is an aggravating condition quite frequently encountered in feminine nose-tips, and for which there are several causes, both local and reflex. A red nose may be caused by infection, sunburn, frostbite, persistent local irritation, intranasal troubles, alcoholism, amenorrhea, dysmenorrhea, uterine congestion or inflammation, syphilis, and many of the dermal diseases. In young women, the most likely causes are, menstrual derangements, sunburn, and local irritants. The wearing of veils is a common cause, although one mostly overlooked. Erythema, the result of transitory local causes, can easily be "bleached" by means of simple lotions of

FIG. 27

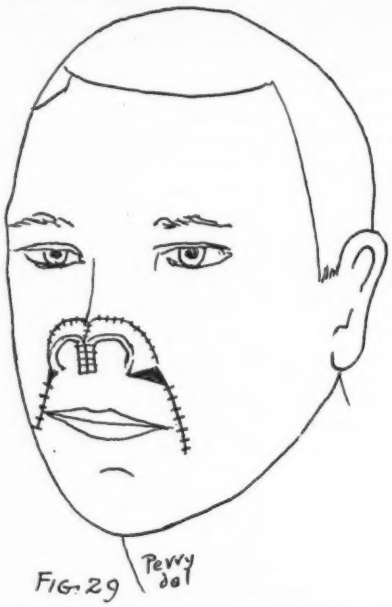


FIG. 29

boric acid or calamine; but of a reflex nature must be treated by way of the deeper-seated origin, supplemented by local treatments.

FIG. 28

Abscess of the connective tissues of the nasal tip virtually always is followed by a depressed cicatrix, small, because the abscess is small, but gigantic as a destroyer of one's peace of mind. These disfigurements are readily and almost instantaneously removed by means of paraffin-prosthesis or of a needle elevation operation. (This condition should not be confounded with abscess of the septum.) Smallpox-pits call for treatment by

FIG. 30

means of electrolysis, phenol, cautery or thiosinamin-plaster.

Epithelioma about the nares, the same as elsewhere, is destructive of tissue and calls

for plastic operations designed to restore the defects. My personal experience is, that

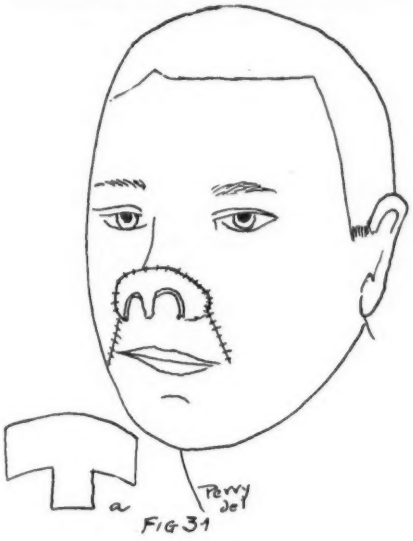


FIG 31

FIG 32

the several caustic treatments will effect a cure of epithelioma of the nasal tip as effectually as will surgical excision, and with less sacrifice of tissue and better end-results cosmetically. In repairing defects, transplants may be made from the adjoining tissues of the cheek or lip or from the forearm. The work is patchwork and calls for skill and ingenuity in fitting the patch to the defect as well as careful general technic.

Of operations for the restoration of these defects there are many, and they not alone are available for epitheliomal sequelæ, but for defects owing to frostbite, trauma or other cause. As a rule, the essential features of these procedures can be more readily grasped from an outline-sketch than from a work-sketch, and the reader is invited to study Figures 6 to 34, in which several of the commonly used operations are pictured, "before and after."

Hirsutes of the tip may be internal or external. The interiorly growing hairs are best removed from sight by keeping them trimmed short, using fine scissors every few days, as needed. In most cases, the roots cannot be reached with an electric needle. The external hairs are found on the extreme tip of the lobule, in some patients. My own opinion is, that electrolysis is not the best treatment in these cases, and for years past I have had recourse to depilatories. At present, I remove these hairs with the aid of Abbott's depilatory powder, a method which permits of using a fresh medicament for each application. This epilation treatment is painless and consumes only a few minutes of time. The result is not permanent, so that the applications will have to be repeated from time to time; still, it has been noticed in many cases that after repeated treatments the hirsutes become discouraged, the roots devitalized, and growth is suspended.

Gunpowder-marks are easier prevented than removed. Immediately after the powder grains have become implanted, they should

FIG. 33

FIG 34

be removed by picking them out with a fine spud and then the cavities be freely flushed with hydrogen-peroxide solution. The staining is due to the carbon. Cases of long standing should be treated in the same way as tattoomarks, that is, punched out, if small, or tattooed over with glycerite of papoid or caroid, if they are too large for the punch.

Involving the *blood-vessels* of the tip, we find varicosities, angioma, nævus, and telangiectasis. Where one has the necessary equipment, the most satisfactory treatment for these conditions is desiccation by means of the high-frequency current. Very often electrolysis is valuable. Varices can be ligated, while the soft, fleshy nævi, moles, and similar blood-filled growths can be removed by the careful and judicious use of Abbott's dermal caustic.

Various *tumor-growths* are found within the tip of the nose, in fact, any form of hyperplasia, except osseous, can develop from its tissues. Most of these are amenable to operative treatment, with only trifling disfigurement or scarring; in fact, seldom is there anything more than a fine lineal scar where the skin incision was made.

The one exception is that rare disease known as *rhinoscleroma*, an affection of the skin and mucous membrane of the nose in which the nostril is more or less occluded by flattened growths of tissue of a stony hardness. Its etiology is not definitely known; the prognosis is unfavorable, the growth persisting through life; and treatment by excision or otherwise has so far afforded only temporary relief, as recurrence follows in a short time.

Quite frequently the nose is misshapen or the nares are occluded by *polypi* or other growths within the cavity. Such should be dealt with according to their nature.

(*To be continued.*)

THE LAY OF THE FISHERMAN

By F. M. Johnson

Be there a man with soul so dead,
Who never to himself has said,
"This is the day for gamey bout
With thee, my sportive mountain trout"?

If such there be, then let him ride
To spots where gleaming rivers glide
'Neath Autumn's sun, 'mongſt canyon walls,
In white-crowned riffles, bubbling falls.

There in the place where wild-folk ran,
Far from the taints of worked-out man,
Put up your rod, tie on your fly,
And give the gamey trout a try.

Where willows kiss the laughing ſtream,
And Autumn tints so brightly gleam,
In pools and 'mongſt the watercress
Your foeman lies, in peace and reſt.

Your dainty, well-made, well-caſt fly
Floats down the ſtream, and rushes by
Your worthy foe, and like a dart
He rushes out to do his part.

A jerk! A tight'ning of the line!
Ah! well you know that for a time
Your skill, your tackle and your might
Must enter in the well-fought fight.

You reel him in! You let him out!
You both play fair in mighty bout.
Your heart within you starts to sing
With joy to hear the old reel ring.

AT LAST! Within your web-like net,
With heaving sides and gliſt'ning wet,
Your foeman lies! Ah! now you feel
That foe was worthy of your ſteel.

The man who trods the leaf-ſtrewn sod
And sees the wonders of his God
On every leaf, muſt morbid be
If he gives not his thanks to Thee.

IS THERE a man with soul so dead,
Who never to himself has said,
"This is the day for gamey bout
With thee, my sportive mountain trout"?

Perianal Vegetations

And What to Do for Them

By Charles J. Drueck, M. D., Chicago, Illinois

VEGETATIVE growths about the anus, sometimes called warts or papillomata, consist of a hypertrophy of the papillary layer of the skin and are composed of connective tissue and blood-vessels, together with a covering of epithelial tissue; they are bright-red in color, fragile, and liable to bleed freely. Little warty tumors develop, which rapidly branch and intermingle with the branches of other warts until they form what seems to be one large flat tumor, but which, when removed, is seen to be attached to the skin by numerous pedicles. The moisture and secretions collect between these ramifications and, as a result of maceration and decomposition, these growths throw off a strongly fetid odor. By the contact, all of the surrounding tissue becomes inflamed. According to the exuberance of the growth, various fanciful shapes are assumed, these being described as cockscomb, cauliflower, and such like. When the connective tissue is abundant and the epithelial covering is thin, the growth is dry and hard; but when the dermis is thick and the growth soft, it is moist. The growths are bright-red, turgid, and bleed easily, being largely supplied with blood-vessels.

The etiology of these growths is not known; the moisture and warmth of the parts favor the development, although an idiosyncrasy exists in certain individuals. Formerly they were considered proof positive of syphilis and sodomy, but, although they may be associated with syphilitic lesions about these parts, they are not necessarily a sign of lues, for they are found in persons apparently healthy and cleanly. It is possible that the discharge of gonorrhea and leucorrhea, from hemorrhoids, proctitis or any other lesion may be the cause. The condition itself is not contagious and is not responsive to antisyphilitic treatment.

The vegetations usually develop during adult life, but are sometimes seen in infants and the aged. Their development in some persons is rapid, and slow in others. In advanced life, it is thought, they result from degenerative changes in the skin. The growth may consist of a single papilla or it may involve the whole intergluteal area. It may be situated at the anal margin or outward, on the buttock. Often the primary growth begins on one buttock and later affects the opposite cheek. Any kind of irritation would produce the same effect. The symptoms, therefore, vary with the extent of the growths, their location, and the amount of the secretions.

When the growth is large, the patient is aware of a foreign body being present between the nates, and he is annoyed by the foul discharges as well as by the fresh abrasions constantly occurring. When the anal margin is involved, defecation causes considerable pain, which may resemble the pain of fissure; there also may ooze out a few drops of blood. Although as a rule these growths develop on the outside skin, they may originate within the rectum and then are very difficult to diagnose.

The differential diagnosis is not difficult, except that it may be mistaken for a mucous patch; its attachment, like that of a shrub, being sufficient to distinguish it. Syphilides have a diffuse infiltrating base and form a broad, flat mass free from any tendency to pedunculation. Malignant growths are deep-seated on an indurated base and tend to invade the deeper structures.

In the treatment of this affection, scrupulous cleanliness often is all that is necessary; however, the application of any kind of astringent dusting-powder that dries and shrinks them is a very efficacious aid. When the growth is small, it may be removed by ligating it; when broad and flat, though, the ligature cannot be applied. The quickest and surest method is, to excise with the knife or scissors, then touch the bleeding points carefully with the thermocautery. I recall the case of a patient who presented himself in extreme suffering. As he was an ambulatory patient and had to be on his feet the greater part of the time, only a small area was removed at a time in this manner. The field was well washed with soap and water, scrubbed, and dried. The tissue was infiltrated with a 2-percent cocaine solution. The growth was removed with scissors and the hemorrhage checked by applying adrenalin solution. Twice each day the wound was washed and covered with a sedative ointment.

Vulvovaginitis in Little Girls

With Special Reference to Prophylaxis and Treatment

By William J. Robinson, M. D., New York City

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VULVOVAGINITIS is a very common affection among children of the poor and those in institutions. In the latter, it used to be one of the commonest and most annoying troubles we had to deal with, one little girl having vulvovaginitis often infecting an entire ward or dormitory. In former years, the dangerously infective character of vulvovaginitis was not known, and, so, the infection was readily conveyed by towels, linen, toilet-seats, bed-pans, bathtubs, syringe-nozzles, thermometers, the nurse's hands, and in numerous other ways. In later years, very great improvement has taken place in this respect, the disease being considered as contagious as measles, and the greatest care being taken in isolating from the other inmates any vulvovaginitis-patient or -pupil. The leading hospitals now do not admit a female child to any of the wards without the presence or absence of gonococci ascertained by means of a vaginal smear, previously taken.

Etiology

I have not entitled this article "Gonorrheal Vulvovaginitis," and the reason for this soon will be apparent. Vulvovaginitis signifies simply an inflammation of the vulva and vagina, and it may be owing to various nonspecific causes, as, for example, uncleanliness, decomposing smegma, local decomposition of urine in case of incontinence, pinworms, and trauma from masturbation or attempted rape. Some varieties of this inflammatory process are caused by the pneumococcus or the diphtheria bacillus. There also is a catarrhal variety, which is exceedingly infectious, but in which the gonococcus can not be found.

Nevertheless, granting the great variety of causes giving rise to vulvovaginitis in children, the chief cause—indeed, the one responsible in the vast majority of cases—will be found to be the gonococcus. But here comes in a distinction—a distinction that I consider of great importance, namely: I maintain, as I have maintained for many years, that the gonococcus which is found in the vulvovaginitis of children is *not the same gonococcus* with which we have to deal in the ordinary gonorrhea of the male and the ordinary gonorrhea of the *adult* female. It may be that it is not the gonococcus at all, but a coccus which presents the morphological and cultural characteristics of the gonococcus, but, yet, its virulence is of an entirely different order; or, we will say, that it is the gonococcus, but of a different strain—which merely means begging the question.

I base my conviction upon two facts, as follows:

If the gonococcus in vulvovaginitis of little girls were of the ordinary variety with which we ordinarily are dealing, the disease would be of a much more severe character than it actually is, particularly so, if we take into consideration the delicate mucous membrane of the vulva and vagina of little girls. As will be seen, in the discussion of the symptomatology, vulvovaginitis in children very frequently is an extremely mild affection. If the virulent gonococcus were the cause, much more damage, much more pain, and much more inflammation would be the result.

Secondly, when a gonorrhea in a little girl is a result of intercourse, of rape, then the infection is of a much more severe character. Of course, the rejoinder may be made that here there is an additional element, namely, the trauma. However, there are many cases in which no trauma has been inflicted, in which no penetration has taken place, where there has been merely contact of the penis with the vulva, and, still, the inflammation is of a much more severe character than otherwise.

Symptomatology

Consequently, we are bound to conclude that the infective germ in the ordinary socalled gonorrheal vulvovaginitis in girls is a coccus having the morphological and cultural characteristics of the gonococcus, but possessed of much lower virulency.

Generally speaking, vulvovaginitis in children is a mild infection. A child may have it for several weeks or months withoug being aware of it, without saying anything about it, the diagnosis often being made by the mother, who begins to notice the creamy discharge on the girl's linen or underwear. And this is the principal symptom in little girls, thus

afflicted—the discharge. This discharge may be exceedingly profuse, covering the vulva, vagina, and cervix; looking through a urethroscopic tube or a small vaginal speculum, the cervix often is found bathed in a pool of creamy discharge.

There is this great difference between gonorrheal infection in little girls and in adult females, namely: while the adult vagina is extremely resistant to the gonococcus, a gonorrheal vaginitis being one of the rarest things in practice, the delicate mucous membrane of the child's vagina, on the other hand, offers little resistance to the gonococcus and frequently becomes inflamed and eroded. In severe cases, there is a simultaneous infection of the urethra, Bartholin's glands, and vulva, vagina, and cervix, and the child may complain of burning at urination, itching and pain around the vulva and anus, and slight pain in the abdomen. There may be a moderate rise in temperature, up to 101° F., and in some instances the attack is sufficiently acute to give rise to a chill and fever. A mild arthritis may set in within the first weeks of the infection, although as a usual thing it comes later on.

Complications

Very fortunately, the most serious complication of gonorrhea in the adult female, namely, inflammation of the fallopian tubes or salpingitis, is so rare in little girls as practically to be negligible. Of course, it is possible that a mild inflammation of the fallopian tubes does take place, sufficient to occlude the opening, though not severe enough to provoke any symptoms. This is possible, I say; still, as these patients present no subjective or objective symptoms, they cannot be diagnosticated.

This freedom from salpingitis is due to three causes: (1) The complete closure of the internal os offers quite an effectual barrier to the passage of the gonococcus; (2) menstruation, which is an important factor in favoring the growth and spread of the gonococcus, is absent; (3) coitus, which is one of the most positive and most injurious factors in causing salpingitis—the inflammation often making itself apparent almost immediately after a more or less stormy sexual act—is also absent here.

What is said about salpingitis also applies to peritonitis, the latter often being a consequence of the former. In the very few cases where it does develop, it generally is localized and followed by rapid recovery, unless too troublesome treatment interferes.

While, as stated, vulvovaginitis is a comparatively mild infection so far as its symptomatology is concerned, it nevertheless has a disastrous effect upon the child which is unfortunate enough to become a victim of the disease.

First of all, vulvovaginitis is an extremely long-drawn, persistent disease. It usually takes months, and these months may run into years, before a complete cure is effected. Second, relapses and exacerbations are quite common. Third, the treatment is a disagreeable one for the child, and occasionally is painful. Fourth, it has a disastrous effect upon the child's *morale;* most parents, though they may love the child most affectionately, look somewhat askance at it; and continuous vaginal treatment somehow or other has a humiliating effect upon the child, which begins to consider itself as an outcast, as something apart from other children. Fifth, the child's education many times is seriously, and permanently, interfered with, because often it must be taken out of school, whether public or private; while private tutoring is, of course, feasible for only the few. Sixth—and this is a point not sufficiently appreciated by the profession and the laity, but it is an important point nevertheless: vulvovaginitis in children has, unfortunately, a disastrous effect in *hastening the sexual maturity of the child.* Whether this is the result of the congestion of the organs produced by the inflammation or of the speculum-examinations, paintings, douches, applications, tampons, suppositories, and the rest, the fact remains that girls who suffer from vulvovaginitis in childhood become sexually mature considerably earlier than do normal girls of the same class, stratum, and climate, and their demand for sexual satisfaction is much more insistent. Seventh, a mild vulvovaginitis may be the cause of permanent sterility.

Prophylaxis

Thus, it will be seen that vulvovaginitis in a little girl is a calamity and that everything possible should be done to guard female children from contracting it. Every child, without exception, should *always* sleep alone. Under no circumstances should a child sleep with anybody else, be it a sister, a mother, a friend, a governess or a servant girl. People should be very careful in sending their children to spend a night or two with some friends. The friends may be all right, but, still, a friend of the friends or a relative of the friends may not be. I know of several

instances in which the origin of the vulvovaginitis could be traced to little girls' spending a week at the house of some friends where a boarder or relative was infected with gonorrhea. That children should be kept away from associating or playing with adults or other children who are known to have gonorrheal infection goes without saying.

The child's genitals should be inspected frequently by the mother, and scrupulous cleanliness, by means of frequent bathing, sponging with warm solutions, and powdering, should be maintained. The toilet-seats in school should receive special attention. The wooden seat is a menace, because often it harbors gonorrheal pus from either the female or male genitalia, while the only proper seat is one of the socalled U-shaped style, that is, in which the front is entirely open, like the letter U.

Treatment

The treatment of vulvovaginitis in little girls still is in a decidedly unsatisfactory condition. On account of the smallness and inaccessibility of the parts, thorough-going treatment frequently is impossible. The *noli me tangere* superstition, that the hymen is something sacred and must, under no circumstances, be ruptured, makes the treatment still more difficult. Strictly speaking, vulvovaginitis should constitute a hospital-disease, but, owing to the length of time required for a cure, this frequently is impracticable or impossible. However, a competent nurse or, barring that, a firm, intelligent mother, is a *sine qua non*.

The keynote of the treatment of the vulvovaginitis of children, as it is in gonorrhea in adult females, is gentleness. Whatever we do, we must do no harm, and certainly must do nothing that may favor an extension of the inflammatory process above the internalos.

In general, the treatment of vulvovaginitis in children consists in ensuring cleanliness and the employment of vaginal instillations and suppositories.

Locally, erosions, if any, must be touched up with silver nitrate or iodine. The vulva should be washed several times a day, depending upon the amount of the discharge, and protected with a gauze pad, over which a pair of drawers or knickerbockers which the child itself cannot undo are to be worn. The washing of the vulva may be done with just plain soap and water, or boric-acid solution, Burrow's solution or a 1 : 1000 chinosol solution may be employed.

Irrigation of the vagina should be done by means of a fountain-syringe having a small glass nozzle. About a pint of irrigating solution should be used at a time; the pressure should be low. The best solution for vaginal injections is a weak 1 : 1000 lactic-acid solution; or, a weak solution of tincture of iodine (1-2 to 1 fluid dram to a quart of water) may prove equally good. We do not expect to destroy all the germs by means of the vaginal injections; still, we do destroy some of them; besides, leaving the pus in the parts produces erosions and chafing, and gives rise to condylomata acuminata. So, even the mechanical removal of the pus does good.

Where an inspection of the vagina shows erosions (and no treatment can be satisfactory unless inspection is made with a small vaginal speculum—not a urethroscopic tube—and strong light), these must be touched up with a 10-percent silver-nitrate solution or with full-strength tincture of iodine.

After thorough douching, it is well to instil, in obstinate cases, 30 to 60 minims of a 5-percent protargol solution, or a 2-percent silver-nitrate solution. As conditions improve, the instillations need be repeated only once or twice a week.

While I have no use whatever for suppositories and bougies in male gonorrhea, they are of some value in gonorrhea in the female, and I often prescribe a small 2-percent protargol suppository having the following composition:

Protargolis	gr. 1-2
Acidi borici	grs. 5
Olei theobromatis	grs. 25

M. ft. suppos. No. 1. Dent tal. dos. No. 30.
S. One suppository at night.

From the use of kaolin or kaolin and yeast, I have abstained in little girls; first, because they are difficult of introduction and application; second, the powder forms hard concretions, which are difficult of removal (which is not the case with adult females).

Vaccines I do not use at all, for I have not found them of the slightest value. They frighten the child and cause it unnecessary pain, without producing the slightest beneficial effect. I am glad to see that other investigators are coming to the same conclusion.

The Story of a Head-Hunter

By Thomas E. Moss, M. D., Kevil, Kentucky

EDITORIAL NOTE.—During his years of service as surgeon in the Philippine Constabulary, and as a health officer in northern Luzon, where he came into intimate contact with the savage tribes, Major Moss learned to know the head-hunting people as few men do. This story is a record of actual happenings, though told in fiction form.

THE mountainous interior of the Philippine Islands is inhabited by the wild tribes of the archipelago. Many things happen in those parts that are never heard of except by those whose duty calls them among those savages; and not even they unless, by reason of something they have done for them, they have gained their deepest veneration. Such was the case in this instance, for I had saved a great chief's life by an operation, for which I chloroformed him. The people thought I had killed him and then brought him back to life; for, they had seen him lying there without moving while I cut him open and then sewed him up again. Now these people looked upon me as a kind of deity, and they spoke of me as "the man who killed Carnao, then brought him back to life." But this is another story and is told merely to show how I learned things which no one else found out, nor ever will except through me.

Among these savage tribes, tragedies happen in men's lives, in which traits of character are shown well worthy of the esteem of any Christian, although most Christians condemn them without justly weighing the matter. Deeds of bravery, love, and fidelity are of almost daily occurrence with them.

Up in these mountains, these savages live in towns or villages so situated that it is difficult to approach them; for, nearly every such settlement is at war with every other community round about, because at some time or other they all have taken toll of lives from each other, until it has become a general feud. Indeed, it is a religion with them to take heads from each other. These savages do not scalp their victims, as our Indians do, but take the whole head.

At certain times of the year, regular head-hunting parties are organized, to raid some unfriendly town. The greatest effort to secure a head is made after the rice has been planted; for, it is their belief that, if no head is brought home at that time, the crop will be a failure. Then, again, when the rice has been harvested, is another time. In addition, their laws may require other such expeditions. It must be remembered that these people have as fixed laws as we have, and they must be obeyed strictly, inasmuch as these savages are extremely superstitious, and this urges them to live up to them.

The Kalingas are very superior to most of the other tribes, mentally as well as physically. They are very tall, lithe, and powerful fighters. The Kalinga towns are situated well up in the mountain range running parallel with the length of the eastern side of the Island. The Kalingas do not live in the foothills; these are the smaller mountains one sees as he leaves the level prairie which runs back from the Great Cagayan River that passes through the large stretch of country lying between this range of mountains and the range running along the eastern coast. This great plain is very fertile and is green all the year round, and here cattle, deer, and buffalo graze and find an ideal place to live. The cattle graze near the river, the deer back a little farther, near the strips of timber which grow on both sides of the little mountain streams that flow down and across the plain and join the Great River. The buffalo and wild boar live in the foothills.

On the banks of the Great Cagayan River are the cities of the civilized Filipinos. These all are Catholic Christians, although they do not show much Christianity in their dealings with the savages; and between the two peoples there is an undying hatred. For generations the Filipinos have abused the savages, stolen from them, and killed them at every chance. This bad feeling started by the Filipino hunters going out into the foothills to hunt and, instead of confining their hunting to deer and wild buffalo, they killed the tame herds of buffalo belonging to the savages.

In the city of Malilie, on the Cagayan River, lived a rich Filipino by the name of Pedro Sanchesmirro. This man was fond of deer hunting and frequently rode out into the foothills with a lot of his servants, to indulge in this sport. Every rich man always has a lot of servants of every description, from the boy whose duty it is to fan him to his hunters, who are the pick of them all. These hunters are kept in good condition and are supposed to look after the dogs, hunting-ponies, and spears. The lance is

18 feet long and has a sharp knife-like tip and a tapering steel handle to balance the long bamboo shaft. The hunting-ponies are very fleet of foot and love the chase as much as the men, and they need no urging when the deer break from cover, but are off like a shot the instant they catch sight of it, not waiting for the word of command. The deer graze on the prairie at night, but near morning go into the strips of timber which grow along the water courses. Into this timber are put the beaters and dogs, while the hunters take up positions back half a mile on each side of the timber, so that, when a deer breaks from cover in making for the mountains, it will have to run half a mile before reaching the line of spearmen waiting on their ponies, and consequently is a little wearied. The ponies then catch the deer within a mile or so.

When Pedro Killed a Chief's Buffalo

On one of the deer hunts undertaken, the game was scarce and luck poor; so, Pedro, the wealthy Filipino, decided he would make a raid on a herd of buffalo belonging to one of the Kalinga towns further up, but at that time grazing in the foothills. Pedro ordered his hunters to kill as many of the animals as they could. (Incidentally, these buffalo are afraid of Filipinos and are almost as difficult to get at as are the deer.) The hunters did as ordered, cut up the animals killed, loaded the meat upon their ponies, and went back to the town of Malilie.

Now, there happened to be a Kalinga boy watching the herd, and, when he saw the hunters coming, this boy hid himself and watched them kill the animals. As soon as the hunters had left, he hurried back to his home town and told the owner of the herd what he had seen. It so happened that the herd belonged to a great chief, whose name was Kalipowan. Hearing the boy's tale, he held a council, and it was decided that Kalipowan take a few of his head men, go to Malilie, and try to get the presidente to compel Pedro to pay for the animals. Accordingly, the next morning the chief and his warriors started upon their mission, arriving at Malilie late in the evening. The next day, the presidente appeared and opened his court, whereupon Kalipowan stated his case. However, Pedro Sanchezmirro, who was sent for, denied all knowledge of the matter. Crediting Pedro, the presidente ordered Kalipowan arrested and thrown in jail; but his companions were allowed to leave.

All prisoners, in the Philippines, are worked upon the streets and on the grounds of the town officials. Pedro, knowing this, asked the presidente to detail Kalipowan to clean

The tame buffalo.

up around his own house, his object being to get an opportunity to kill Kalipowan, for he was afraid to see him go free. So, Kalipowan was sent in charge of a policeman and made to work at the point of the bayonet. The guard was called into the house to have a drink of wine, whereupon Pedro shot Kalipowan, telling the guardsman that Kalipowan had tried to kill him and he had shot in self-defense. Kalipowan's wound was not immediately fatal, and he kept on praying to the spirits that they send his son to him, so that he might let his people know how foully he had been dealt with.

On the third night, as Kalipowan's eyes were growing dim, he seemed to feel that his prayer would be answered; for, he could hear the call of a mountain-nightbird close to the

window toward which he had his face turned, his cot being by the side of the wall where the night-breeze brought the scent of the mountains as the clouds came settling down from those heights which he knew he never would see again. The jail-guards, knowing that Kalipowan was dying, had gone to the farther end of the jail and were playing at cards and drinking wine. They did not hear the insistent call of the nightbird, which, during an outburst of drunken laughter, turned into the whispered name of "Kalipowan." The dying chief then knew that his supplications had not been in vain. With a superhuman effort, he rallied his fast-vanishing vital forces and pulled from his sash a little bamboo stick upon which he had carved in hieroglyphics a diary of all his humiliations and murder. The hand of his son was thrust through the bars, rested a moment upon his head, snatched the stick from his stiffening fingers, then vanished into the night. The guards played on, all unaware that the death-warrant of Pedro was swiftly speeding back to the mountains.

Kalipowan's son, Aguilan, made his way back to the mountains, and reached there just at daybreak; only, however, to find more trouble in store for him.

Dire Fate of a Headhunting Raid

When a headhunting expedition is organized by a town, the men are called together, a council of war is held, the town upon which the attack is to be made is selected (it may be the nearest town or it may be a town thirty miles away), and twenty or thirty of their best warriors are picked for the enterprise. Sharpening their spears and headaxes and preparing the rations for the journey, these warriors slip out of the town after sundown and take up the fateful march, and, if the journey is a long one, they hide and sleep in the thick undergrowth during the day; timing their travel so as to reach their destination just at daybreak, when the inhabitants are beginning to waken and emerge from their houses.

High up in these mountains, the natives do not rise very early, for the clouds fill the air, and it is unpleasantly cool, and therefore at daybreak only a few persons will be emerging from their houses; only those who have work to do get up before the sun comes out. This is why an attacking party chooses this time; for, if they waited until the whole town was astir, they would have little chance to take a head. So, they aim to reach the town when the morning dawns, then rush in, kill two or three early risers, cut off their heads, snatch them up, and run for their lives; thus getting a start of the inhabitants, who come swarming out at the first alarm. As a rule, the headhunters get away, but not always; many times a member of the expedition is left behind, dead.

As Aguilan reached the top of the mountain just above his town, he heard the headhunters' yell of triumph and knew that his town was being attacked. There was only one trail leading down to the town, and upon this Aguilan was standing. He could not see what was going on down there, the night clouds not having risen yet. The sun had not looked down there that morning, as it had for countless ages, and lifted the clouds above the mountain's top where Aguilan stood. He needed no eyes to tell him what was happening; he knew that at least twenty hostile men were stabbing and hacking some unfortunate townsman who had come out just in time to be met by a headhunting party.

Aguilan had his father's big war-spear and headax, for, on the little bamboo stick, which he had taken from his dead father's hand, was carved the information where Kalipowan had hidden them on the outskirts of Malilie before entering the town.

By this time, the whole town had turned out to fight the headhunters, whom Aguilan could hear coming up the trail. At this point

On the buffalo hunt.

the trail ran through a small V-shaped opening in the lava wall of this extinct volcano, in the kettle of which the town lay, and there hardly was room enough for one man to pass at a time through this V-shaped opening. Quickly determining upon a course of action, Aguilan seized a boulder and rolled it into the trail where it led through this narrow passage. The boulder did not completely stop up the opening, inasmuch as the crack ran upward a distance of fifty feet or more; still, it would make it more difficult for the oncoming headhunters to escape, because they would have to climb over the obstruction. Strapping his shield over his heart, he seized his big war-spear in his right hand and his ax in his left; then stood in wait.

The first headhunter reached the boulder within a few seconds and, thinking it had rolled there accidentally, quickly climbed to the top, only to drop down upon the deadly war-spear of Aguilan. The second one up paused a moment upon seeing the dead body of his comrade and the spear of Aguilan waiting for him; however, he could not stop, as his kinsmen behind were crowding, and pushing him in their endeavor to escape from the pursuing townspeople. Uttering a shriek of warning, he sprang down, only to meet the fate of the first one over. After this, Aguilan fought like a demon, stabbing and striking at the men as they poured over the boulder and sprang down. He had no time to ward off the spears and axes; he was trying only to kill as many as possible before he succumbed to the many wounds he was receiving. He was soon covered with gaping wounds, with the dead bodies of his enemies, fleeing from their pursuers in the rear, piling up about him.

Only a few of the headhunters escaped. The dead bodies of those who had fallen on both sides of the boulder were carried into the town and laid in a pile, to be beheaded as soon as their own dead had been buried, and the wounds of those who were not killed had been dressed.

When the dead had been buried—each one under his respective house, as that is the custom among these people—the town-folk turned their attention to the pile of their dead enemies, and the cutting off their heads was the next ceremony. It is the custom to spread all the weapons of dead enemies out in a pile before the chief, for him to take his choice.

As he was thus looking over the weapons before him, the chief discovered among them Kalipowan's great spear and headax. At once all was in a turmoil of wonderment, for the people could not understand how a band of headhunters from a distant settlement could have in their possession Kalipowan's weapons. Then it was that a bloody figure arose from the ground and staggered into the arms of the chief, clutched the spear of Kalipowan, then fell to the ground. It was Aguilan, covered with wounds, and with only strength enough to point to his sash where lay hidden that little bamboo-stick with its story. Aguilan had lain in this pile of 'dead, not having been recognized in the early morning's light and the excitement of the fight. Aguilan, the hero, was nursed with every care the savages knew, but it was many months before he was well enough to walk about the town.

(To be continued.)

THE times are waiting for men who shall serve and not merely inquire; strive and not merely investigate; give to their age and their kind not so much learning in bulk as wisdom in action; great doing as the only true fruitage of great thinking; the consecration to the uplifting of one's fellow men of one's best, rather than the conserving by mere culture of one's self.—H. C. Potter.

The Basis of Cancer Therapy

By E. M. PERDUE, M. D., Kansas City, Missouri

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DESPITE the great weight of authority to the contrary, the successful treatment of cancer depends upon its etiology and pathogenesis. For many years, in America, it has been the plan of organized medicine to cast discredit and the ban of professional ostracism upon any physician who presumed to proclaim the real cause of cancer, because the real cause of cancer being made known would discredit the surgical propaganda.

Cancer is a chronic alkaline intoxication caused by the retention and faulty elimination of body wastes. The essential factor in producing this alkalinity is, the retention of carbon dioxide. Carbon dioxide combines with the proteid substance of the tissue-cells and in turn binds the alkaline hydrates to the cells, in the form of carbonates. Both combinations result in freeing water from the tissues, thereby increasing the alkalinity.

All the tissues of the human body are colloids. Colloids are liquid, jelly-like or solid, in proportion to the amount of ionized water in combination with themselves.

In early life, the water content is very high. The tissues are soft, pliable, give off their wastes and assimilate nutriment readily. As age advances, these colloidal substances consolidate and give up water. As they give up water, the mineral substances in them become more concentrated. The alkalinity of the tissues tends to increase. Up to middle life, elimination is so active that this alkalinity does not rise above 0.85 percent, when measured by a solution of sodium chloride. Past middle age, some persons are inclined to constipation and low elimination by way of the urine. The ductless and sexual glands deteriorate in their functions, and, as a result, oxidation becomes deficient. Carbon dioxide is retained as a product of waste; it also is elaborated in a stagnant colon. It is absorbed by the tissues and the tissue-juices combine with the proteid substance and displace water. Then new combinations are formed with the alkalis and soon the condition of hyperalkalinity is attained.

However, this latter condition cannot go on indefinitely. There is a physiopathologic limit, which may be said to be physiologic for the cancerous or physiologic for the precancerous state. This hyperalkalinity may attain 1.0 percent, or even a little higher. Hyperalkalinity is the precancerous state Alkalinity is the condition of all growth or development. The trophic control of the human body is maintained at the physiologic 0.85 percent. Below this, ulceration is common. Above this, acute wounds heal by first intention. In the hyperalkaline state, persons are liable to cancer.

If we represent the proteid mixture of the tissue-cells by the symbol Pm, the colloid of tissue may be represented as follows:

$$Pm(OH\ H)_n,$$

and the combination of the colloidal proteid substance with CO_2, by the following formula:

$$Pm(OH\ H)_n + CO_2 \longrightarrow Pm\begin{pmatrix} CO_2 \\ (OH\ H)_{n-1} \end{pmatrix} + H_2O.$$

The combination of this resulting compound with an alkali may be represented as follows:

$$Pm\begin{pmatrix} CO_2 \\ (OH\ H)_{n-1} \end{pmatrix} + Ca(OH)_2 \longrightarrow Pm\begin{pmatrix} CaCO_3 \\ (OH\ H)_{n-1} \end{pmatrix} + H_2O.$$

These alkaline compounds of protoplasm are insoluble and irreversible. They tend to harden the tissues, dry up the fluids, store salts in the cells, alter the functions of the cells, and generally to produce the condition called senility.

Why Cancer Occurs Past Middle Life

For these reasons, the cancer-patient, besides being past middle life, is constipated, passes a small amount of urine low in chlorides and alkalis, has high blood pressure, low blood resistance, and a subnormal temperature. He has faulty nutrition and assimilation, defective elimination, his skin is dry and harsh and inclined to the formation of senile keratoses, especially if he be a blond. The alkaline intoxication is capable of concentration by evaporation; hence, the great predominance, in blond men, of epitheliomas above the collar and below the wrist-band. Epitheliomas are rare in brunettes, in the dark races, and in men and women who lead an indoor life.

This general constitutional condition of hyperalkalinity is the principal etiologic factor in the production of cancer or carcinoma. Add to this a chronic irritation of low grade, and by this stimulus trophic control may be

broken and hypertrophy of epithelium result. Chronic irritation determines the locus of the growth of the cancerous tumor. The tumor is but a local manifestation of the general constitutional condition. This chronic irritation never rises to the grade of acute inflammation. Acute inflammation destroys new growth. Chronic irritation, either local or reflex, is but a secondary cause. Hyperalkalinity is an absolute prerequisite.

Mammary Cancer

The most conspicuous example of the effects of reflex irritation is the prevalence of cancer of the breast in women who have suffered a laceration of the cervix uteri. This sometimes is the secondary cause of the location of a cancer in the uterus, but much more frequently of cancer of the breast. The uterus is very resistant. During the reproductive period, nature permits no interference with its functions. When the cervix is lacerated, it contracts on the scar. The rectum, in sympathy, also contracts, loses tone, fails of peristalsis, and becomes constipated. The breasts, in response to the uterine irritation, are reflexly irritated. After the termination of the reproductive period, their normal function of hypertrophy sometimes is changed to a lawless hypertrophy.

The direct irritations which are the secondary causes of cancer are very numerous. Exposure to the weather, the wearing of glasses on the bridge of the nose, bows of glasses behind the ears, the shaving of a mole, pressure on a wart, senile keratoses, the pipestem on the lower lip, the prodding of the breast by the broom-handle, bumping against the bed-post, mastitis, sunburns, feverblisters, and a great many other conditions which do not rise to the severity of acute inflammation.

The Rational Treatment

In addition to removal of the causes of cancer, rational treatment depends upon other factors, as follows:

The cancer-cell has greater proliferating vitality than the normal cell.

The cancer-cell has less resisting vitality than the normal cell.

The cancer-cell can be killed by acute inflammation.

In view of the foregoing well-established facts, the rational treatment of cancer embraces the following:

Elimination, alvine and general: In order to overcome the cancerous condition of hyperalkalinity, it is necessary that the bowels be made to get rid of all the poisons possible and that they no longer be the source of absorption of noxious products of putrefaction. It is necessary that there be a complete evacuation of the colon at least once every twenty-four hours. To the trained prescriber, the whole field of materia medica is open. It is not enough that the bowels be loose, they should exercise all their functions of elimination.

The output of the kidneys must be increased, from the prevailing 250 to 500 Cc. of the cancerous subject, to 1500 to 2000 Cc., and be maintained at these figures. Medication must serve to increase the mineral output and decrease the alkalinity of the system.

Nutrition: Treatment must be given looking to an increase in the appetite, the improvement of the digestion, and the proper assimilation of food.

Oxidation: In the cancerous condition, the blood is depleted, is deficient in hemoglobin and in oxygen-carrying power. The approach of old age in cancer-patients is coincident with defective action of the ductless and sexual glands. The colloidal compounds in the cancerous condition are irreversible and insoluble. They must be broken down by oxidation before they can be eliminated. In addition to the well-known remedies employed to improve the blood, the gland-extracts may be given to reinforce the hormones of oxidation.

Destruction of the cancerous tumor: The constitutional cancerous condition being removed, there remains the destruction of the cancerous tumor. The cancer-cells of low resistance can be killed by heat, by refrigeration, by the inflammation of caustic chemicals, and by the inflammation of an acute infection. The virtue of these methods is, that they kill the cells of the tumor and create such an area of inflammation in surrounding tissue as to destroy any outlying cancer-cells.

The most useful methods are, electrothermal coagulation for inaccessible cancers, cancers of membranes whose secretions wash chemical caustics away, or where the absorption of caustics would endanger poisoning. Electrothermal coagulation is the method of choice in cancers of the tongue, inside the cheek, and of the uterus.

The chemical caustics are to be preferred on the exposed and accessible parts of the body, for all the reasons of readiness of application, assurance of permanent cure, cosmetic effect, and conforming to the desires of the patient. They should be applied heroically, to produce the acute inflammation

that is the basis of the successful local treatment of the cancerous tumor.

Our conclusions may be summed up as follows:

1. Cancer is a chronic alkaline intoxication.
2. The locus of the tumor is determined by chronic irritation, either direct or reflex.
3. The cancerous condition must be corrected by means of elimination.
4. The cancerous tumor must be destroyed by inflammation.
5. Inflammation is best secured by electrothermal coagulation and by chemical caustics.

The Physician's Microscope

Its Construction, Preservation, Use and Application

By A. H. Uhler, M. D., Rochester, New York

[*Continued from Page 536, June Issue*]

The Fine Adjustment

THE fine adjustment is the next thing to be considered; and it is the more important of the methods of adjusting the microscope. It should respond readily to the least turn of the controlling micrometer-head, should cause no lateral displacement of the object, and should remain in adjustment even if the table on which the microscope rests is jarred.

For ordinary work, a vertical movement of 1-50 inch (0.5 mm.) for a complete revolution of the micrometer-head is too fast. It should be 1-120 inch (0.2 mm.); but for photomicrography and work with immersion-objectives of 1.35 to 1.60 NA, it should have a vertical movement for a complete revolution of 1-120 inch (0.125 mm.) to 1-300 inch (0.100 mm.). A movement of 1-625 inch (0.04 mm.), on the other hand, I consider to be so slow as to be trying to one's patience.

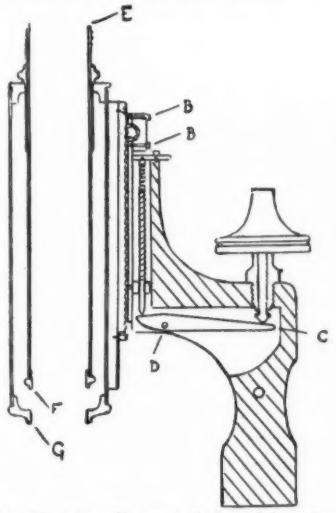

Fig. 13. Fine adjustment—horizontal lever form.

There are in use a great variety of fine adjustments, among them, the horizontal lever form (Fig. 13); the vertical lever form (Fig. 14); the Campbell's differential (Fig. 15); the

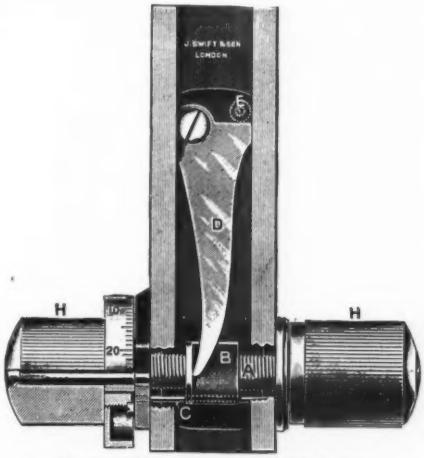

Fig. 14. Fine adjustment—vertical lever form.

stage fine adjustment (Fig. 16); the nosepiece fine adjustment (Fig. 17); the Continental fine adjustment, originated by Oberhauser (Fig. 18); Swift's latest pattern (Fig. 19); the Zeiss-Berger pattern (Fig. 20); Leitz's side fine adjustment (Fig. 21); Reichert's side fine adjustment (Fig. 22); and last, though not least, the Males-Watson two-speed fine adjustment (Fig. 23). Of all of these, those illustrated in Figures 16, 17 and 18 are to be avoided, whereas all the others can be highly recommended, especially the horizontal and the vertical lever fine adjust-

ments, which have now become quite popular in this country. For the actual details of the individual fine-adjustment mechanisms, the various manufacturers' catalogs should be consulted.

The Microscopic Stage

I shall now give the details of a perfect stage and then pass on to the other parts of the instrument.

Fig. 15. Showing Campbell's differential.

The stage should be large; if circular, 125 mm. in diameter; if square, about 100 × 100 mm. It should be sufficiently thick, so that bending will not take place upon pressing any part of its surface. It should be vulcanite covered, so as to render it acid-proof. Blackened brass stages become very unsightly through wear, and are attacked and turned green by nitric acid. The stage should be acid-proof. There should be *at least* a distance of 80 mm. (not 75 mm.) between the front of the arm and the center of the stage, for the proper accommodation of a petri dish 150 mm. in diameter or a large brain section or

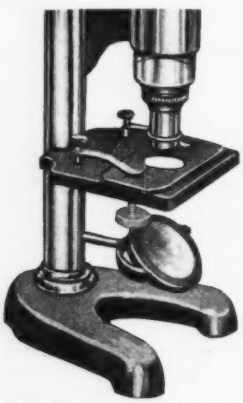

Fig. 16. Stage fine adjustment.

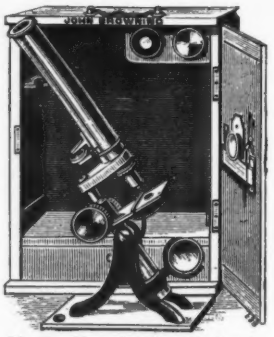

Fig. 17. Nose-piece fine adjustment.

serial section. Stages are also made to revolve, and with centering screws, so that their center can be made to coincide with the optic axis. A mechanical stage may be affixed on its upper surface or it

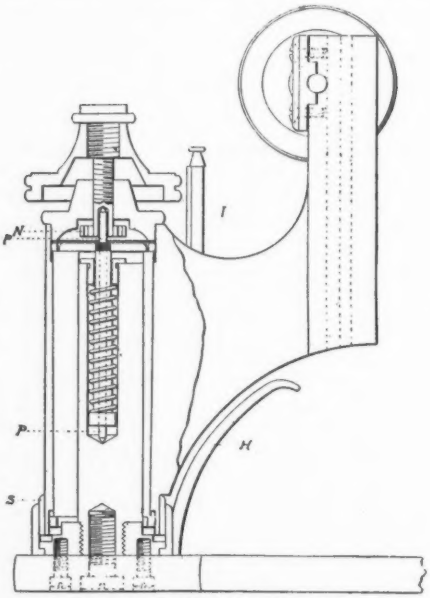

Fig. 18. Continental fine adjustment.

may be constructed so that it can be removed, leaving the plain surface of the stage exposed. The mechanical stage is operated, usually, by two diagonal rack and pinion milled heads, which preferably should work on one axis. These cause the object to move from front to back over the surface of the stage and from side to side, depending upon which milled head is turned. A vernier with appropriate graduations should be supplied.

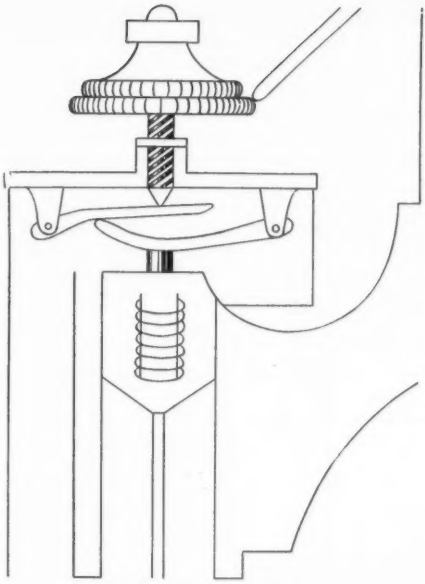

Fig. 19. Swift's latest pattern.

The spring clips usually are fastened to the upper surface of the stage and should be of German-silver or some other semiflexible material, so that the object can be moved beneath them with ease and yet so that they will hold the glass slide firmly when it is left in any position. The tail-piece is simply a metal bar which drops from the back part of the stage beneath and to which the substage is affixed by its various adjustments. It should be long enough to give sufficient range of adjustment for the rack and pinion of the substage. It should be perfectly rigid and firmly affixed to the underneath part of the stage. The tail-piece is used chiefly for this form of substage; a shortened modified form being used where simply the upper end of the mirror bar only is attached, as is the case when the substage consists of a simple underfitting or of the quick-acting screw variety in the cheaper models.

The substage is so named from being located immediately under the stage. It is in some respects the most important part of a microscope. There are six different forms of substages in use at present, as follows:

a. Simple slotted tube, screwed to the middle and under part of stage, known as an underfitting.

b. The quick-acting substage, focused by an endless screw attached beneath and to one side of the stage.

c. Spencer's oblique light No. 1, which is a modified Abbe illuminating apparatus.

d. The Abbe illuminating apparatus, being the best German rack and pinion substage.

e. The English form of rack and pinion substage, with centering screws and sometimes a fine adjustment.

f. A combination of the Abbe illuminating apparatus and the English form, that is, rack and pinion substage, with centering screws for the condenser, and immediately beneath it an iris diaphragm which swings out of the optic axis, and which can be thrown out of centrality by means of a rack and pinion arrangement for oblique light effects. This is a most valuable arrangement for testing objectives and, therefore, very handy to have on any microscope-stand.

The rack and pinion of the substage and its fine adjustment and other parts should be

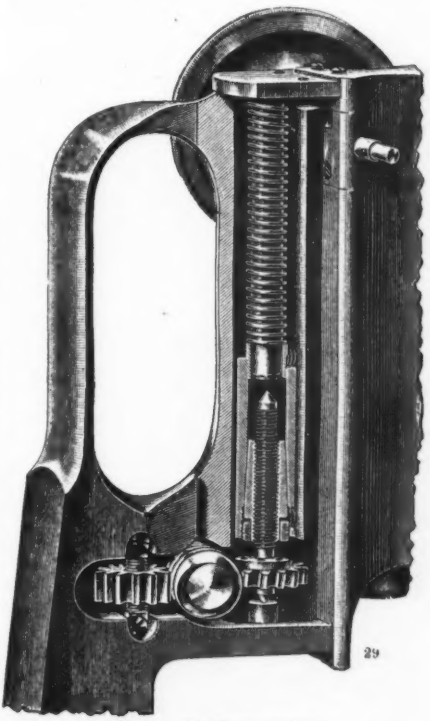

Fig. 20. Zeiss-Berger pattern.

as perfectly fitted as the coarse and fine adjustments of the microscope itself. The internal diameter of the substage ring into which the condenser is fitted should be 38.786 mm. (1.527 inch), which is the Royal Microscopical Society's standard. The mir-

ror and the bar on which it hangs should be so mounted that it can swing freely in all directions. We even prefer this in connection

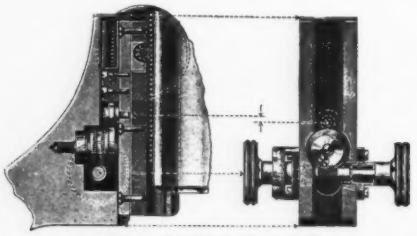

Fig. 21. Leitz fine adjustment.

with the Abbe illuminating apparatus. However, be this as it may, the mirror should be plain on one side and concave on the other, and of large diameter; a large-diameter concave mirror being a great convenience for concentration of light with low and medium powers.

The Foot of the Stand

The foot of the microscope may be of the horseshoe type or a tripod, or it may be a simple round disk of metal. As made at the present time, the horseshoe foot has several drawbacks. First, it is often made too narrow, so that, if the microscope is accidentally struck on one side, the instrument is very liable to topple over; also, when the microscope is very much inclined and, say, a 3-inch (75 mm.) objective is in focus, the instrument is liable to fall backward, striking the eyepiece against the table and damaging the eye-lens of the ocular.

The horseshoe foot will never be made properly until it is made to rest on three points equidistant from each other and equidistant from the center of a circle, the circumference of which passes through these points, and when the upright pillar is mounted on such a point that there is an equal distribution of weight. For my part, therefore, I consider the tripod best, as it fulfils these

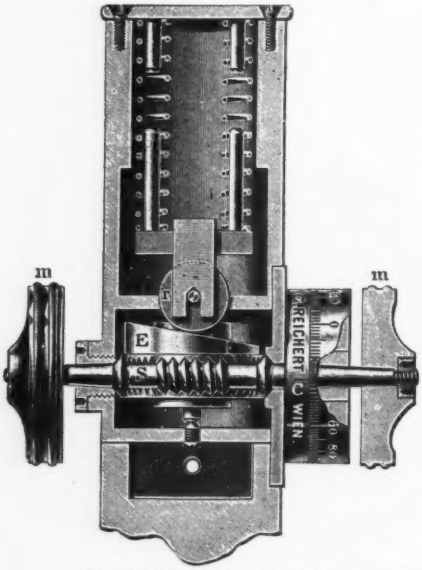

Fig. 22. Reichert's fine adjustment.

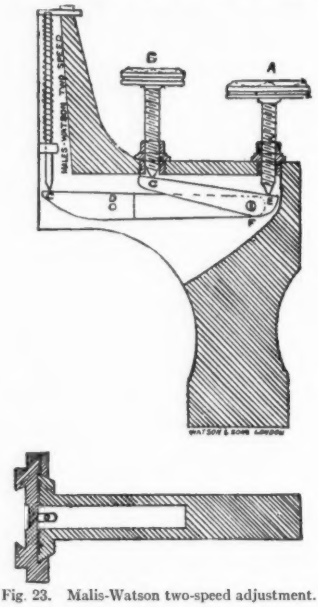

Fig. 23. Malis-Watson two-speed adjustment.

conditions in the most perfect manner; however, a simple flat metal disc could be made small enough for portability and yet large enough for stability; and this, after all, seems the best compromise, as it is easy to manufacture. The horseshoe foot, also, has another great defect, especially in the higher-priced stands, and that is its extreme weight, which makes the stand unduly heavy. I think the horseshoe foot could be improved by making it lighter in weight and shaped like the letter "Y," which would virtually convert it into a small compact flat tripod.

The joint and clamp for inclination need no description. The trunion should work smoothly and yet very firm, so that the upper part of the instrument will remain as placed and not fall back gradually into the horizontal. The clamping lever is useful in altogether doing away with this tendency to fall.

How to Select a Microscope

In selecting a microscope, the purpose for which it is to be used must always be borne in mind. If intended for elementary examinations, a stand with a rack and pinion adjustment, a large stage, and an arm-axis distance of at least 80 mm. will be needed. Such an instrument is excellent for examining plate cultures, colonies, and so on, of living microorganisms. The Spencer No. 74 is a stand of this character. If, however, a cheap stand for urinary work be desired, the inclination joint can be dispensed with, and a stand with only an iris diaphragm some little distance beneath the stage can be used instead. Such a stand is Spencer's No. 72, also Watson's noninclinable microscope. The Bausch & Lomb Optical Company no doubt would be willing to furnish their stand F without inclination joint at a lower cost.

For the routine work of the physician I would suggest that the Continental model has seen its day. A stand with a large arm to axis distance of 80 mm., a side fine adjustment, and at least a quick-acting substage should be employed. Such instruments are the Bausch & Lomb F S and F F S, the Spencer Nos. 64, 44, and 25; Watson's Standard, and the Edinburg student's stand H, and similar stands. If, however, a higher type of instrument be desired, I would suggest a stand with an Abbe illuminating apparatus, or, better still, with a substage which has, in addition, centering screws to the condenser.

For photomicrography, a microscope with a large body and very slow fine adjustment is very desirable, which stand can also be used for the most critical bacteriological and hematological research.

To sum up, then, the qualities of a good microscope for the physician should be:

1. Handle arm that can be grasped without injury to the fine adjustment.
2. Side fine adjustment 1-250 inch (0.125 mm.) for a complete revolution of the adjusting head.
3. Distance between center of stage and front of arm of at least 76 mm. and better if it is 90 or 100 mm.
4. Long working distance of 1 mm. for the 4-mm. objective whose aperture should be about 0.65 to 0.75. There is nothing to be gained by having a higher Numerical Aperture for the dry objective where a 1-12-inch (1.8 mm.) oil immersion objective is purchased on the same stand.
5. Large vulcanite-covered stage, 100 × 100 mm. or, if a round, concentric, rotating stage, 125 mm. in diameter.

The fine adjustment should cease operating when the objective rests on the cover glass.

The microscope for the physician should have the stage iris-diaphragm eliminated, as it serves no useful purpose and is an everlasting source of annoyance, it being very likely to become gummed with cedar oil, which dries on the leaves, causing it to stick.

(To be continued.)

[CORRECTION.—Doctor Uhler calls our attention to two mistakes made in his article last month, as follows: Figures 1 and 2 were transposed, and Figure 3 is wrong side up and should be labeled "Body-tube and nosepiece." Please note.—ED.]

WE can make and keep this country worthy of the men who gave their lives to save it, only on condition that the average man among us, on the whole, does his duty bravely, loyally, and with common sense in whatever position life allots to him.—Theodore Roosevelt.

What Others are Doing

SOME FACTS ABOUT THE HEROIN HABIT

That the heroin habit has been greatly on the increase in recent years has been realized by the medical profession, but the full extent of the growth of this form of habituation is only appreciated by those coming in contact with the denizens of the red-light districts of our great cities.

Clifford B. Farr, in his service at the Philadelphia General Hospital, has had occasion to treat many of these cases, and in a paper published in *The New York Medical Journal*, May 1, 1915 (p. 892), he gives some interesting statistics showing the growth of this and other narcotic habits. For instance, in 1911, 5 patients suffering from the cocaine habit were admitted to the hospital, 29 opium and morphine addicts, and 1 heroin addict. Since that year the number of cocaine habitues has diminished to 3 in 1914, and none at all in 1915, while the number of opium and morphine addicts increased to 66 in 1914, and 136 in the first 68 days of 1915. In 1914, 28 cases of heroin addiction were treated in the hospital, and in the first 68 days of 1915, 86 cases of heroin addiction. In other words, the proportion of heroin addiction to opium addiction has increased from 3½ percent in 1911, to 63 precent in 1915.

In five years, 1911 to 1915, inclusive, 130 cases of heroin addiction have been treated, 91 of these being men, and 29 women. A large proportion of these patients were young, most of them in their twenties. It is significant that practically all these heroin addicts were denizens of the tenderloin. *In not a single instance did a patient report that the drug had been prescribed by a physician.* Nearly all of the patients acquired the habit from associates. They blamed it on "parties," "girls," "fellows," "friends," and the like. One boy learned it while acting as an errand boy; another while at school, buying it from a chocolate vendor. A few began it to overcome hallucinations induced by cocaine, and others substituted it for cocaine on account of the difficulty of procuring the latter drug. *Only two patients pretended that there was any sufficient reason for beginning its use.* Heroin addiction is a vice addiction, pure and simple, at least as observed by Doctor Farr in Philadelphia.

One patient took the heroin by mouth, one by hypodermic injection, and all the rest used it as a snuff. In most cases 1-6-grain tablets were employed, and it is of interest that all the drug was obtained, directly or indirectly, from one or two dealers who, in order to protect themselves, sold it to "registered" persons only.

The dosage employed by some of these addicts was enormous: 17 patients were using 100 pills (16-2-3 grains) daily; 5 persons used 200 or more pills a day, the maximum daily dosage taken by any one person being 54 grains.

THE ETIOLOGY OF RICKETS

There has been a good deal of theorizing relative to the etiology of rickets. About all we know about it is that when this disease exists, there is some serious defect in calcium metabolism, shown by the inability of the body to utilize this salt, which, as a rule, is present in the food in sufficient quantity. After analyzing various hypotheses, Leonard Findlay, of the Royal Hospital for Sick Children, in Glasgow, after a statistical study of 400 or 500 rachitic children, has come to the conclusion that the disease is induced by two factors, i. e., confinement and deficiency of fresh air. From his experiments he has found no evidence that deficiency of fat or any other dietetic error is a factor in its etiology.

As is well known, rachitis is very common among animals in confinement. There is only one zoological garden, at least in Europe, says Doctor Findlay, where rachitis does not prevail, and that is in the one belonging to Hagenbeck, situated on the outskirts of Hamburg, where the conditions are made to simulate the natural homes of the animals, permitting of their being allowed to roam about freely in parks enclosed by high railings. This fact supplied the key to Doctor Findlay's careful investigations and analysis of rachitic children of his own city and country.

In his studies the following points were investigated: (1) the length of time the child was breast-fed; (2) order of the child in the family; (3) the condition of the bowels previous to the onset of the trouble; (4) the amount of air-space in the house allowed to the child; (5) the number of stairs to the rooms occupied; and (6) whether or not the child had been taken much out of doors.

As already stated, an examination of the results obtained from this investigation show very definitely that the disease is proportionate in its occurrence to the amount of air-space allotted to each child, and that as this is diminished, the incidence of the disease rapidly increases. In other words, the two vital factors in its production are (as already remarked) confinement and deficient fresh air.

SOFT-SOAP INUNCTIONS FOR CONSTITUTIONAL DISEASES

After a cursory review of the literature on the employment of inunctions with soft soap for combating various constitutional diseases, particularly glandular tuberculosis—in which "brilliant results are recorded"—F. Kuelbs, of the First Policlinic of the Charite Hospital at Berlin (Priv. Counc. Dr. His, director), who, in view of the excellent results secured with this procedure in organic diseases, thought of applying it in those conditions in which local as well as general symptoms have been found to yield to stimulation of the skin, tells of his experience in the *Therapeutische Monatshefte* for October last.

Doctor Kuelbs directed his efforts principally against nervous cardiac disturbances, respiratory diseases (notably chronic bronchitis, emphysema, bronchial asthma), gastro-intestinal disturbances of the order (largely) of nervous dyspepsia, and inveterate hemicrania (5 cases). More than 200 patients were subjected to this inunction-course, of 4-weeks, 8-weeks, or longer, duration, with appropriate intervals between.

So far as could be ascertained, no deleterious side-effects occurred, while not once (contrary to the natural expectation) was eczema or other dermatic irritation seen; also, no changes in the condition of the circulation took place (temperature, pressure, cell count, hemoglobin content, pulse frequency).

The most striking effects were obtained in the category of heart disorders and the obstinate hemicranias. Three months had passed without renewed attacks. The distressing symptoms of the cardial neurosis diminished, and the patients became more capable of physical exertions. In the case of the gastro-intestinal disturbances, the spells of vomiting grew less, other local symptoms gradually improved, and appetite became decidedly better. As to the diseases of the respiratory tract, dyspnea diminished and bronchitis improved both subjectively and objectively; while the 3 permanently improved cases out of 10 treated do not promise material benefits in this direction.

TECHNIC OF SYSTEMATIC SOFT-SOAP INUNCTIONS

The manner of making systematic inunctions with soft soap, as discussed in the preceding paragraph, is described by Doctor Kuelbs as follows:

Proceed as is customary in the mercurial inunction cure, attacking seriatim in regular rotation the various portions of the body—the arms, the legs, and the two aspects of the trunk—providing a 6-day course. Use about a tablespoonful of soft soap [the linseed-oil and potassa "green" soap of the U. S. P. virtually is identical with that of the Ph. Germ.], distribute it over the area, continue gentle friction for five minutes, allow the application to remain in place for five minutes, and then wash it away with a sponge and lukewarm water. When dealing with a tender cuticle, it is well to apply dusting-powder. Wind up by covering (until the next-day's treatment) the part (whether limb or trunk) with a light flannel bandage; a measure most practicable when the procedure is executed in the evening.

PERCUTANEOUS USE OF SOFT SOAP FOR SCROFULA

Scrofula is a name, bequeathed to us by a race of observant predecessors, over which the taboo of modern authority has been spoken, yet, which seems a handy one and fills a useful niche in medical terminology; indeed, our wise men are not as yet a unit in the assertion that the conditions it has covered are merely tuberculosis of the lymphatic glands. Be that as it may, "scrofula" has occupied an important place in medical thought and literature, and the following historical notes, as presented by F. Kuelbs in his article mentioned above (loc. cit.) in a measure are based upon that conception.

*The author cites contributions published as follows: *Berl. Klin. Woch.*, 1878, 1879, 1881, 1882; *Muench. Med. Woch.*, 1899; *Aerztl. Intell.*-Bl., 1882; *Ther. Monatsh.*, 1901; *Ther. d. Gegenw.*, 1910; *Beitr. z. Klin. d. Tuberc.*, 1903; *Jahrb. f. Kinderh.*, 1880; *Schmidts Jahrb.*, Bd. 52; besides several textbooks and monographs.

It is this and similar work that underlies the author's personal experience with the percutaneous use of soft (or, green) soap, a therapy which he calls "brilliant" in its results in treating conditions of that nature. We translate this material more or less closely, in order to insure clearness.

As early as in the year 1846, these soap-rubs were recommended by C. A. W. Richter for scrofula and tuberculous diseases. Seemingly, though, Richter's idea found no imitators, and it fell into oblivion. Some thirty years later, Capesser, ignorant of Richter's proposition, had occasion to apply the favorite green-soap course for scabies in a boy afflicted with scrofulous glands; when it came to him to try systematic inunctions with this soap against that condition. Consequently, he prescribed semi-weekly soap-rubs over the entire body, continued for ten minutes, then to wash off and dry. Results being extremely gratifying, Capesser extended this practice widely to sufferers from grandular tuberculosis and to scrofulous children in general. Publication of his results was followed by the adoption of this therapy, and confirmation of its value, by Hausmann, Klingelhoefer, Koermann, Hollmann, and many others.

Hollmann, especially, had excellent results in the case of several convicts suffering from severe carious affections. He declared having had better success with this therapy than from the then popular codliver-oil dosing and inunction.

Thereafter this treatment was elaborated more particularly on the surgical side, and in 1899 was warmly recommended by Hoffa for tuberculosis of the glands, his observations covering more than 200 cases, his patients quickly regaining appetite and improving all around, while there occurred a rapid resorption and regression in tuberculosis of the joints and of the glands. His modified method consisted in using common alkaline soap and leaving it on the skin for at least half an hour.

Two years later, Rohden employed a combination of codliver-oil soap and potassium iodide (soon exploited as "dermosapol"), finding it efficacious in tuberculosis bone fistulas, joint affections, and lupus. Then Czerny used socalled white alkaline soap (or, "silver-polish"); also combining this with an equal part of potassium-iodide ointment in tuberculosis of joints and bones. More recently, Kausch has reported upon his successes with this treatment, who finds it to act similarly as do the warm saline-springs baths in tuberculosis. He rubs the soap in for ten minutes and washes it away thirty minutes afterward.

DANGER OF NARCOSIS FOR OPERATIONS UPON DIABETICS

Entirely aside from the intrinsic risk incurred from larger operations in the case of persons afflicted with diabetes, M. Labbé, of Paris, calls renewed attention (*Presse Med.*, 1914, p. 388) to the danger threatening from the employment of anesthesia, by virtue of the condition of acidosis produced by the narcotics. In this respect, chloroform is the most dangerous agent, and should be taboo; but ether, while less so, likewise gives rise to acetone in the blood. The least dangerous, the author avers, is ethyl chloride. Even in the intraspinal anesthesia the formation of acetone is not entirely excluded.

This knowledge, the author comments, should forbid any surgical intervention in diabetic subjects except under most urgent circumstances, and then fullest precautions should be taken. By means of proper dieting, hyperglycemia is to be removed or minimized, and any existing acidosis must be combated by a diet of dry vegetables, oats or milk. Preceding the operation as well as following it, the patient is to be alkalinized by means of sodium bicarbonate, either internally or administered intravenously.

MODE OF ACTION OF SOAP INUNCTIONS IN SCROFULA AND OTHER CONSTITUTIONAL DISEASES

After telling what good results he, like others before him, has obtained from the dermatic use of soft soap in scrofula and various constitutional diseases, F. Kuelbs (*loc. cit.*) endeavors to find an explanation of the mode of action of this therapy, but starts with the bald declaration that he is not able to give a reason, any more than the others who employed it.

Three explanations seem to present themselves to all the speculators: stimulation or irritation of the integument, or nerve stimulation, or neutralization of some systemic acidity (say, lactic acid). The stimulation-idea would fit easiest in the case of respiratory affections, inasmuch as here any kind of stimulation is beneficial, as, for instance, baths, massage, hot air; the essence being, improvement of skin activity. The same might, perhaps, betrue for the cardiac disorders that improved; for here also hydriatrics are of value in a measure.

Still, simple local treatment as the factor seems to be excluded; for, 30 patients, selected at random and with exclusion of any suggestive influence, were rubbed with colored fat, petrolatum, and boric-acid unguent, but seemingly with negative result.

Strongly doubting our ability, with our present resources, to trace the organic activities under this treatment, nevertheless, the author inclines to side with the view of several writers, that fundamentally an aroused activity of the cuticle promotes a healthy metabolism—which says a great deal, and, yet, in truth, so little. He has not undertaken tests in this direction. As to the acidity-theory, he has no convictions.

Altogether, Doctor Kuelbs feels that, in the purely practical results, air-baths, sun-baths, and local hydrotherapy well parallel soft-soap inunctions; nevertheless, he would advise trials of the latter for the purpose of influencing the skin and the entire organism; inasmuch as this therapy offers an exceedingly simple and convenient measure in the numerous functional disturbances confronting the every-day practitioner, promising not alone to cure local troubles, but to restore general health. Nothing novel in principle, still, a new, simple, cheap, practically proved curative agency.

SALVARSAN IN SCARLATINA

Having sufficiently tried salvarsan, intravenously administered, in scarlet-fever, F.Glaser (*Deut. Med. Woch.*, 1914, No. 38) reports his deductions as follows: In a large percentage of cases, the scarlatinal diphtheroid throat condition disappears. Frequently the fever and hebetude are beneficially influenced. In toxic cases, no influence is exerted. Complications are not prevented. In more than 50 percent, a dosage of 0.1 Gram per kilogram body-weight brought on rigors, diarrhea, and vomiting.

ACUTE BACILLARY ILEOCOLITIS

A very important paper upon this subject is contributed by Dr. Philip F. Barbour to *The Journal of the Tennessee State Medical Association*, March, 1915 (p. 446). Special interest is found in Doctor Barbour's discussion of the treatment of this condition. Regarding intestinal antiseptics, he says: "Therapeutic nihilists claim that they are absolutely worthless; optimists expect to accomplish wonders; but the truth lies somewhere between these extremes. While one cannot make the intestinal tract aseptic and sterile, he can at least lessen the bacterial activity. Certainly one can lessen the fetor of a typhoid stool, and dilutions of antiseptics which will not kill the bacteria will inhibit their growth and activity."

Doctor Barbour discusses the relative value of different intestinal antiseptics, and finally makes the statement that, in his experience, the sulphocarbolates of lime, soda and zinc are more valuable and more satisfying than other preparations of this class when used for the purpose of disinfection.

Doctor Barbour also writes in a very interesting way of the planting of antagonistic bacteria in the bowel, for the purpose of limiting the effects of pathogenic bacteria. "By using the Bulgarian lactid-acid bacillus," he says, "a degree of acidity may be achieved in the intestine which will prevent or inhibit the growth of nearly all the various intestinal flora. Many reports of a most glowing character have attested the value of this simple method of treating the various infections in the intestinal canal. The administration of the tablets of the standard preparations of the Bulgarian bacillus is easy and the results are most satisfying. Some authorities make use of them and take no precautions about diet or anything else. It would seem best to use all the means available and not to confine oneself to one alone."

We regret that we lack space for the presentation of Doctor Barbour's fine paper in its entirety. It is one which deserves reading and rereading. Its practical value to the practitioner called upon to treat alimentary infections of the child during the summer season can hardly be over-estimated.

SYMPTOMS OF UNDERFEEDING IN CHILDREN

Valuable suggestions regarding underfed children are given by Isaac A. Abt, in *The St. Paul Medical Journal* for April, 1915 (p. 291). For instance, the following symptoms are described: The regular weight-curve ceases, depending upon the degree of underfeeding. The weight-curve becomes horizontal or falls gradually. The abdomen sinks in and the muscles become relaxed. The skin becomes pale and lies in folds. Patches of eczema may occur. The temperature may remain normal, or in some cases it may become sub-normal. The heart's action may become slow, thus showing the effects of the underfeeding, and a slow pulse is a frequent clinical observation.

The psychic state and the appetite are variable. In older infants who are underfed we note great unrest. They cry almost constantly, and indicate a desire for food. Infants who put their fingers in their mouths and make sucking movements, and show a facial expression of desire, and move their heads forward and back as though they wanted something, we may safely assume are hungry. On the other hand, some underfed infants fall into an apathetic state. Such children lose in weight, and have no appetite.

Ordinarily the underfed baby is constipated; occasionally he vomits. It is a fact that cannot be too strongly emphasized, however, that underfed breast babies may suffer from diarrhea, and that not infrequently such babies may do better if they are given sufficient food instead of too little.

BACILLUS BULGARICUS IN DIABETES

We find another paper upon this subject by Dr. Philip Horowitz, in *The New York Medical Journal* of May 1, 1915 (p. 898). He analyzes a contribution upon this topic, published in *The Journal of the American Medical Association* for February 6, 1915. The writer of the latter paper gave records of four cases of diabetes, treated for a period averaging between two and three weeks. The results obtained with the Bacillus bulgaricus cases were said to be unsatisfactory.

Doctor Horowitz, in preceding papers, has emphasized the importance of combining Bulgarian-bacillus treatment with proper diet, and he declares that he can produce fifteen cases to every one of the four reported by this writer in the Association *Journal*, to show that the combination of proper diet and proper medicinal treatment will produce positively effective results. He also points out that the writer in the *Journal* used a dosage of the Bacillus bulgaricus which was so small as to be ineffective, while attention to hygiene, care of the bowels, the neutralization of coexisting acidosis, and exercise are not touched upon at all. In none of the said four cases was the patient under treatment more than 30 days, while in one he was under treatment only 11 days. Moreover, the diet allowed was unscientific and unsatisfactory. In Case 3, for example, the carbohydrate intake was too low, while the enormous quantity of butter and butter fat allowed was probably responsible for the acidosis, which clearly caused the patient's death.

Doctor Horowitz reasserts his faith in and enthusiasm for the Bacillus-bulgaricus cultures in these cases, but he insists that we cannot expect to effect a cure when the patient's diet is carelessly laid out and other conditions essential for success are neglected.

FERMENT-THERAPY IN DIABETES

Basing upon an experience with 40 patients, A. Schnee, of Frankfurt a. M. (*Deut. Med. Woch.*, 1914, No. 46), confirms the reports of previous writers as to the value of fermozyle in diabetes mellitus. The ferment reduces the carbohydrates to their catabolic products, causes a reduction of sugar excretion, and leads to greater tolerance of carbohydrates. These results the author observed in about one-half of his 40 patients treated. Concurrently other symptoms gradually disappeared, including pains in the muscles and nerves, disturbances of sensation, sleeplessness, and abnormal thirst.

What "fermozyle" is we do not know, but in view of the success attending the use of cultures of Bulgarian bacillus in this country we suspect that it is some preparation of this organism.

THE ALLEN TREATMENT OF DIABETES

An interesting method of treating diabetes which is being much commented upon is that proposed by F. M. Allen (*Bost. Med. and Surg. Jour.*, Feb. 18, 1915). The essential feature of this treatment is the introduction of fasting days, during which the patient abstains entirely from food of all kind. At the beginning of treatment there is a fast of from one to two days, extended from two to ten days, the purpose of this fast being to clear the urine of sugar, acetone and diacetic acid. During the fast, the patient is given nothing but a little alcohol, in the form of whiskey or brandy. When the patient is free from glycosuria from 24 to 48 hours, then feeding is resumed, at first very slowly and cautiously.

The different kinds of food are allowed, including protein, carbohydrates and fats, but as a rule the first given when feeding is resumed are the carbohydrates, perhaps in the form of vegetables containing 5 to 6 percent of this food element. The amount of food is increased day by day, until a trace of glycosuria recurs. When this sign appears, the sugar can be removed from the urine again by another day of fasting.

Protein is usually given in the diet after a trial has been made of carbohydrate feeding, and it is allowed at first as an egg or two. Meat is added later, the dietary gradually being built up as tolerence is established. In order to give bulk to the food, a considerable quantity of green vegetables is considered advantageous.

One result of this method of treatment is loss of weight. This is not considered objectionable by Doctor Allen, who believes that in the effort to cause an increase of weight the physician is likely to bring on the characteristic symptoms of the disease. "In brief," says *The Journal of the American Medical Association*, "it is necessary to restrict all classes of food and test the tolerance of each patient in each particular class. Carbohydrate is given if possible, but is kept safely below the limit of tolerence."

GANGRENE OF EXTREMITIES RESULTING FROM HEART DISEASE

Two instances in which decompensated heart trouble in its ultimate stage eventuated in symmetrical gangrene of the extremities (upper or lower) are related by V. Kraus in *Sbornik Lekarsky* (cf. *Wien. Med. Woch.*, 1915, p. 46). The diagnosis was supported at necropsy, when endocarditis of the bicuspidal and aortic valves was demonstrated. The author assumes a nervous influence as the direct cause, brought about through a nutritional disturbance of (especially) the vasomotoric nerves, owing to the faulty circulation.

While Raynaud's disease presents a certain analogy, this can be excluded, because here the asphyxia, the local syncope, is a prominent feature and at first is evanescent.

DIETARY OF MIXED AMYLACEAL IN DIABETES MELLITUS

While in severe and in middling severe cases of diabetes mellitus a carbohydrate dietary comprising a single amylaceous article of food is effectively antiglycosuric as well as antiketonuric (i. e., preventive of acetonuria), W. Falta, of the First Medical Clinic at Vienna (*Muench. Med. Woch.*, 1914, p. 1218), asserts his obtaining equally good results from a regimen including a variety of starch-foods; in that way greatly modifying the repellent monotony of meals. Consulting the pleasure of the patient, Professor Falta permits for this cure soups of oatmeal, barley, grits, rice, potatoes, green corn, and other amylaceous foodstuffs, while the same substances in baked and paste [noodles] form acted almost as well.

The principal condition for this cure is, that no other carbohydrate be allowed in addition to the articles named, and that, moreover, animal-albumen of every kind be strictly withheld. The favorable influence of this regimen upon the acidosis becomes especially pronounced with a rigorous protraction of the cure, and after it has been gone through more or less often after preparation by a strict diet and vegetable-days.

TREATMENT FOR GALLSTONES

We find a splendid, helpful paper upon this topic by Beverly Robinson, in the June 5 number of *The New York Medical Journal* (see p. 1141). Doctor Robinson makes a strong plea for the medical treatment—not that he is opposed to surgical intervention in cases where the symptoms really demand operation, but because he believes that the severity of the operation is such that the patient should not be lightly subjected to it if there is possibility of greatly relieving the condition of the patient by medicinal measures already at our disposal. When a surgeon with exceptional skill is not at hand to perform such an operation, as Doctor Robinson points out, the danger of such intervention is by no means illusory.

In the way of preventive treatment, Doctor Robinson particularly favors resorting to the Carlsbad or Vichy waters; and for those who are merely threatened with gallstones, by reason of their habits and corpulency, he recommends the Elizabethan Spring at Hamburg, which greatly resembles in composition our Congress Spring at Saratoga. However, there is much that the physician can do for the patient in his own home. We may produce latency in gallstones during long periods, provided we prevent stagnation of the bile and its infection with microorganisms. For this purpose such remedies as boldine (so warmly recommended by Dujardin-Beaumetz and other French writers), chionanthin, and sodium succinate are suggested; also, the bile salts may be given in 1-3-grain doses, and sodium succinate, 5 grains of which may be taken thrice daily, after meals, as suggested by R. J. Smith. A combination of sodium salicylate with sodium succinate and ox gall is suggested as being of value, as advised by Riesman. Another remedy found to be a valuable adjunct to the treatment above referred to, especially when intestinal

dyspepsia or fermentation is a factor, is the Bulgarian bacillus, which may be given in the form of tablets or bouillon. Doctor Robinson says that at times he has found this preparation of considerable service. Where it is of little value, it has the advantage of being innocuous.

Diet is important. A variety of flesh food, boiled or roasted, may be enjoyed, and most vegetables are permissible. All fats, however, should be forbidden as far as possible, the quantity of sugar should be cut down, and alcoholic drinks absolutely interdicted. Frequent small meals are desirable, and laxatives are useful when indicated by the presence of even slight constipation, since by increasing intestinal movements they promote a flow of the bile. Daily exercise, moderate and in the open air, should be insisted upon, since in this way the biliary flow will be maintained in a healthy condition and the amount of accumulating cholesterin reduced. We may aid in the elimination of bile by ordering the patient to sip Carlsbad water, mixed with hot water, in the morning on rising. This helps notably in the liquefaction of bile. Sodium salicylate and hexamethylenamine are valuable when there is a suspicion of infection.

EMETINE IN PNEUMONIA AND BRONCHOPNEUMONIA

We find in *The New York Medical Journal*, April 24, 1915, (p. 848) an excellent abstract of a paper by Louis Rénon, originally published in *Bulletins et memoires de la societe medicale des hopitaux de Paris*, March 6, 1914.

Rénon reports his experience with emetine in the treatment of seven cases of croupous pneumonia and eight cases of bronchopneumonia. Of the former, in which the emetine was given in 1-3-grain (0.02 Gram) doses twice daily, six ended in recovery. Although no effect of the drug in shortening the course of the disease was noted, defervescence took place by lysis instead of crisis in four instances, the temperature beginning to recede as soon as the emetine injections were started. In four cases bronchial breathing was observed rapidly to give way to rather coarse subcrepitant rales, which persisted until the temperature had receded to normal, and even somewhat longer.

In the eight cases of bronchopneumonia, all severe and occurring in patients ranging in age from 60 to 67 years, more distinct therapeutic effects were noted. In some cases three 1-3-grain (0.02 Gram) injections were given daily. Dyspnea was manifestly relieved, the bronchial breathing diminished and later ceased, the rales were rendered coarser, and expectoration rapidly increased in amount. The temperature, where high, showed a tendency to fall. Recovery took place in seven instances. The emetine failed to bring on nausea and vomiting or to interfere with the renal function.

Though the number of cases treated was small, Rénon is disposed to consider emetine of value in all instances of serious lung inflammation, and especially recommends it in conjunction with camphorated-oil injections, digitalis, and ammonium acetate in grave cases of bronchopneumonia.

EMETINE IN PYORRHEA

Here is an interesting report of the experience of a dentist, contributed by Dr. C. D. Lucas to *The Dental Summary*. He says:

"A patient reported at the office who had been suffering for years, and upon examination I found that pus could be compressed from each tooth-socket. I proceeded to scale the local deposit from the teeth, as best I could accomplish this at a first sitting, and then injected emetine hydrochloride into all the pockets. The patient reported one week later and the characteristic pyorrhea-pus odor had disappeared and I was surprised to notice that pus could be compressed from only two sockets. The character of this pus was entirely different from what it was the week previous. Instead of having a creamy consistency and color, it had a white color and was mixed with considerable serum.

"These two pockets were treated by scaling the two teeth thoroughly, followed by an injection of emetine, not only into these two pockets but into all the pockets which could be found. The next time the patient reported there was a slight discharge from these two pockets which I found was due to faulty scaling of the teeth. I proceeded to remove this deposit and the deposit which I had overlooked upon the other teeth, and made a third injection. The next time the patient reported I gave a thorough prophylactic treatment and injected emetine into the pockets, which were then practically closed.

"The patient reported three months later for prophylactic treatment and I could find no pus in her mouth.

"Before the first injection of emetine was made I made a microscopical examination and found the coagulated amebic parasite. Another examination of the discharge was made

toward the close of the treatment and the parasites were entirely absent."

This is a fairly typical experience, so far as we are able to judge from the reports of dental practitioners.

PATHOGENIC FACTORS IN PYORRHEA

A beautiful paper upon this subject will be found in the April number of *Oral Health*, which contains an address read by Barrett and Smith, of Philadelphia, before the Toronto Dental Society.

In this paper the authors, while reasserting their belief in the etiologic importance of the entameba buccalis, also point out that there are other factors. Nearly every pyorrhea is a mixed infection, in which, in addition to the amebae, there are a variety of forms of bacteria and various other protozoan parasites. The writers are inclined to the belief that these various microorganisms may act in symbiotic relation with the entamoeba buccalis, bacterial toxins playing their part in the production of the oral sepsis which is so prominent in these cases. The entamœba, however, they are fully convinced to be the essential and most important factor in the etiology of the disease. However, they express their suspicion, that the associated bacteria are linked with the specific amebas in a symbiotic chain. Therefore, it is not only desirable that the specific curative agent, emetine hydrochloride, be administered in the proper dosage and in a proper way, but it is also desirable that local antiseptics, and perhaps proper vaccines, be likewise employed, and they have no doubt that in many cases an association of these measures will hasten and perhaps finally establish the cure.

Because of its convenience of application, its almost uniformly good effects, the absence of any painful effects upon the patient, they express their opinion that *emetine hydrochloride should stand first among the remedial agents and measures when amebic-pyorrhea cases present themselves.* There is good reason to scale the teeth in connection with this treatment, but the scaling should be gently done, to disturb the loosened teeth as little as possible. Indiscriminate instrumentation is painful, and often is really meddlesome; in fact, it results in mechanically breaking the wall of the pockets and further distributing the toxic and microbic contents in the surrounding tissues.

"Antiseptics," they say, "are surely indicated, yet indiscriminately applied, and in too high concentrations, they may destroy tissue which we should endeavor to preserve."

This position is exactly in accord with the one which we have taken, in this journal and elsewhere. *Emetine is the cure—the only real cure, for pyorrhea;* but to secure the maximum of effect, it may and should be associated, especially in the treatment of the oral lesions, with a simple, effective, nonirritant antiseptic.

EMETINE IN TUBERCULOUS HEMOPTYSIS

We have printed many abstracts of papers upon this subject, also many original reports from physicians who have tried emetine hydrochloride in the treatment of hemorrhage and found it effective. Only very rarely has the drug failed. Perhaps the explanation of its occasional failure may be found in the report of B. Nicola, given in *Gazzetta degli Ospedali*, Dec. 20, 1914. He has treated 21 cases of hemoptysis in tuberculous patients by subcutaneous injections of 0.04 to 0.06 Gram (2-3 to 1 grain) of emetine, usually repeated at intervals of twelve hours. Analysis of his cases shows that a good result can be counted on when the hemoptysis occurs in the early stages of tuberculosis, and there is not much loss of blood, or in cases with high blood-pressure and unstable vasomotor system. In all the cases of this kind the tendency to hemorrhage was definitely arrested within 10 to 48 hours.

On the other hand, when the hemorrhage was the result of passive venous congestion, or of an ulcerative process with abnormally low blood pressure, emetine not only failed to arrest the hemorrhage, but showed a tendency to induce toxic symptoms.

EMETINE AND ITS POSSIBILITIES IN DENTISTRY

Many papers upon the use of emetine in pyorrhea are appearing in the dental journals, most of them being favorable to the use of this alkaloid, although sometimes grudgingly so. A very few are skeptical or unfriendly. A somewhat striking feature of the discussion is the occasional expression of resentment that physicians are entering this field. For instance, Dr. T. F. Coyle (see *Dental Cosmos*, May, 1915, p. 539), speaking of the work of Doctors Bass and Johns, says: "Their viewpoint is that of the physician, and while their scientific attainments command the profound respect of the medical and dental world, they

do not possess that intimate acquaintance with the condition they seek to relieve that is possessed by the dentist only."

Elsewhere in this paper Doctor Coyle says: "I regard emetine as the most valuable remedy yet used in the treatment of pyorrhea, but the dentist or physician who trusts emetine, and emetine alone, to effect a cure, is doomed to disappointment." He dwells with considerable emphasis upon the necessity for the removal of all mechanical predisposing causes. "A surgeon," he declares, "would not leave a foreign body in a suppurating wound in any other part of the body and expect favorable results. Pockets must be eliminated to avoid reinfection, and intelligent use and not abuse of emetine be made, which embraces its local and intravenous administration, until complete recovery takes place."

The position taken by Doctor Coyle and the better class of dentists who agree with him, is undoubtedly a sound one. Emetine is, we are fully convinced, the most efficient remedy ever introduced for the treatment of pyorrhea. It is specific in its action, and when given a fair chance will cure every curable case; but it is necessary that all disturbing, irritating local factors should be removed, and for this work the dentist is equipped, and he only. There is room enough in this field for the earnest and intelligent cooperation of dentist and physician. This we have urged at every opportunity, and this we shall continue to do.

THE USE OF MINERAL-OIL EMULSION IN CHILDREN'S DISEASES

In view of the popularity of liquid paraffin (liquid petrolatum U. S. P.), we have been greatly interested in an article by Dr. Charles M'Neil, published in *The Edinburgh Medical Journal*, February 15, 1915 (p. 100). This article is based upon an experience with about 120 patients, observed in the out-patient department of the Royal Edinburgh Hospital for Sick Children, in whom emulsions of liquid paraffin or castor oil (very slightly purgative doses of the latter being given) were employed in the treatment of various forms of chronic dyspepsia in child hood.

Doctor M'Neil points out in this paper that liquid paraffin, in emulsion form, may be used to advantage for many other purposes than as a mere laxative, and that it has specific indications aside from its laxative action. It was used with benefit in cases of malnutrition, especially in those associated with chronic diarrhea. He thinks that it may almost be described as a sovereign remedy for the serious condition of anorexia and malnutrition that so often follows an attack of measles or whooping-cough among poor children; also, it is of great value in enuresis, with dyspeptic symptoms, in recurrent vomiting, in recurrent attacks of fainting or sudden pallor, and in urticaria or eczema associated with dyspeptic symptoms. "In the great majority of these diverse types of illness," says Doctor M'Neil, "there is an abnormal condition of the stools. This may often be a true diarrhea, but not seldom also merely a too soft consistence of the stool, with or without the presence of mucus."

Strangely enough, in the cases reported by Doctor M'Neil, constipation was present only in a small majority, to be exact, in only 21 out of 109 cases in which this symptom was observed.

Doctor M'Neil says that the action of liquid paraffin and castor oil (in the small doses employed) is similar, being entirely local and confined to the mucous membrane of the alimentary tract. The action is probably a sedative one, soothing the congested and unhealthy mucous membrane of the small and large intestine. Whatever its action, the oil, in emulsion form, is found particularly valuable when there is wasting, dependent upon a catarrhal condition of the large bowel and possibly also of the small bowel. In such cases there is rapid improvement in the condition of patients suffering from malnutrition following the administration of this emulsion. Doctor M'Neil is convinced that the preparation deserves a high place among the remedies intended for the relief of this class of cases. Usually it produced a general amelioration of the condition which was not only definite, but rapid. The same is true of lienteric diarrhea, with or without abdominal pain.

Among the symptoms characteristic of patients suffering from these forms of dyspepsia, he mentions slowness of growth, thinness, morbid appetite, disturbed sleep, muscular asthenia, with coldness of the hands and feet and exhaustion on slight exercise, timidity, shyness, and irritability. There are also frequent reports of cough, with or without enlarged tonsils and adenoids; also, intestinal worms are common. One symptom, often present, but seldom mentioned in the textbooks, is excessive thirst.

In cases of this character, the liquid paraffin is given in emulsion form by Doctor M'Neil, in average doses of about 30 minims thrice

daily. It is sometimes necessary to use laxatives, such as calomel, rhubarb, castor oil, and the like.

MINERAL-OIL EMULSION IN ENURESIS

One of the most interesting groups of cases cited by Doctor M'Neil in his paper in *The Edinburgh Medical Journal* (*loc. cit.*) was that of enuresis. Four patients were reported upon in detail, ranging in age from 21 months to 10 1-2 years. However, Doctor M'Neil has notes on 25 cases of enuresis treated or still under treatment with paraffin emulsion or castor-oil emulsion. In every one of these, it is significant that signs of dyspepsia were present, the stools being loose in 10, regular in 10, and constipated in 3. The enuresis followed measles or whooping-cough in 9 cases.

The results of the oil treatment in enuresis were as follows: Cure, 8 cases; great improvement, 3; slight improvement, 1; no improvement, 1; still under treatment and improving, 3; still under treatment, no improvement as yet, 4. In three cases, belladonna or atropine was first employed without effect. In two of these, liquid paraffin or castor-oil emulsion was then used, and with success. In the third, both were used and failed.

Doctor M'Neil is convinced that this treatment deserves a place among our remedies for enuresis. He is not aware that it has been hitherto resorted to for this purpose.

It is significant that, in all the 25 cases, there were signs of dyspepsia, and that, when the general health was helped and the digestion improved, in most instances the enuresis was relieved or cured. This would seem to indicate that in dyspepsia with enuresis, the loss of bladder control has been set up and is maintained by the underlying condition of the bowel.

American physicians should be quick to grasp the value of this suggestion, giving a careful trial to the mineral-oil-emulsion treatment.

URTICARIA AND ECZEMA IN CHILDREN

Another interesting series of cases reported by M'Neil, in *The Edinburgh Medical Journal*, just cited, was one of skin diseases, i. e., urticaria and eczema. Two such cases are reported upon in detail, the first being one of urticaria, the second one of eczema of the arms, neck and thighs. In both, the child's bowels were cleaned out with mercury or some saline, and treatment continued with the oil emulsion, as already advised. In the case of eczema, an ichthyol ointment was applied to the skin.

Doctor M'Neill gave the oil emulsion in urticaria under the hypothesis that this disease is a food anaphylaxis, produced by the absorption into the blood of undigested protein, as a result of some breach in the intestinal mucous membrane. In view of the sedative action of the petrolatum emulsion, it seems likely to be effective in these cases. Whatever the explanation, he has found the treatment successful in a fair number of the cases treated in this manner. Not the same degree of success, however, attended the method when it was employed in cases of eczema.

ABOUT CHRONIC VERONALISM

O. Glaser, of Wien, finds recorded 9 instances of veronal habituation (*Wien. Klin. Woch.*, 1914, No. 44) and to these he adds one of his own observation. A study of these cases indicates the following facts: The regular use of veronal or of other barbituric synthetics (to which the resulting euphoria is liable to lead), even when the individual doses are comparatively small, may induce toxicoses more or less severe. As is true for all hypnotics of the urea-group, it affects the cerebellum and the vestibular apparatus, while the circulatory and digestive systems are spared. The chronic abuse of veronal is noted more particularly in the constitutional psychopathics.

AN UNUSUAL ACCESSORY AORTIC SOUND

In 31 patients, Doctor Kuelbs, of the First Medical Clinic of Berlin (*Zeit. f. Klin. Med.* cf. *Muench. Med. Woch.*, 1914, p. 2340) observed, localized in the second right intercostal space, a peculiar systolic noise of an uneven, scratching, rough character. This sound was found to occur in connection with the following pathologic conditions: Augmentation of the second aortic tone, together with spreading of the aortic shadow in a radiogram (12 times); enlargement of the heart toward the left (17 times); increase of blood pressure (31 times); subjective troubles (10 times); angina pectoris (5 times). In 16, this noise was a casual accompaniment. In 17, lues and arthritis were excluded. In all probability, arteriosclerosis constitutes the principal etiologic factor. A real stenosis of

the aorta seemed improbable, to judge from the clinical evidence. Altogether, this peculiar sound must be assumed to be consequent upon a roughening of the vessel-lining or upon changes of tension of the wall.

SIMPLE TREATMENT OF SKIN DISEASES UNDER UNCONGENIAL CIRCUMSTANCES

The present great war, more than ever before, taxes the ingenuity of the military surgeons, in that they constantly must aim to simplify methods, consider economy, and adapt themselves to the most uncongenial surroundings and absence of customary means.

Much of this experience of the Red Cross men is finding its way into medical periodicals, and these practical suggestions many times needs must prove of great help to practitioners in civil life when they are called upon to treat great numbers of sick people, especially in sequestered localities or in impoverished communities. One of these writers is Anton Blumenfeld, of Lemberg, who contributes an article to the *Wiener Medizinische Wochenschrift*, 1914, No. 49. From this, we select and abstract a number of sections dealing with skin diseases prevalent among the soldiers in the eastern campaign; and we separate them under their respective headings, as follows:

HYPERIDROSIS PEDUM AND ITS CONCOMITANTS

Some of the most common conditions resulting from sweating feet are: inflammation, blisters—that is, lifted cuticle—sores, fissures; besides, not infrequently, corns. A. Blumenfeld's (*loc. cit.*) procedure is as follows:

The patient takes a daily hot foot-bath. On two consecutive days, the feet are painted three times each day with formalin, the latter ranging from 20-percent to full strength, according to the state of the skin. However, the sores first are carefully protected with petrolatum or other fat. If the patient can rest in bed, or on the lounge with shoes off, healing occurs rapidly. The only after-treatment consists in anointing the feet with petrolatum, merely in order to overcome the disagreeable, dry sensation produced by the formaldehyde. It is not necessary to wait for the peeling of the dead cuticle.

None of the numerous foot-powders in vogue approach the efficiency of these formaldehyde applications; which also suppress the hyperidrosis for a certain period. The author recommends the wearing of heavy woolen socks by these sufferers. He does not mention the daily changing and disinfecting of socks and drying-out of the shoes; and dusting in some foot-powder; but, then, that is no part of his theme, while bathing of the feet and powdering are part of German military discipline.

SCABIES, OR COMMON ITCH

Itch, as might be expected, is widely disseminated in the armies in the field. The following simple procedure has been found satisfactory by Doctor Blumenfeld (*loc. cit.*): As soon as discovered, the affected soldier is sent to the hospital, where he receives a thorough cleaning with warm water and plenty of soap. [Soft soap preferable.—ED.] When the skin is dry, a liberal amount of Wilkinson's ointment [This is the Compound Sulphur Ointment of our National Formulary; also known as "Hebra's Itch Ointment."—ED.] is rubbed over the involved areas, but without especial pressure. Three hours later this inunction is repeated. Next morning a cleansing ablution is in order, whereupon the man may be returned to the ranks. Any "scratch-eczema" now will heal under applications of zinc-paste or other bland salve.

INTERTRIGO, OR CHAFING

One of the great troubles from which men on the march suffer is chafing between the legs, technically known as eczema intertriginosum. A means to prevent this is, to cleanse the parts daily and, after drying, apply a soothing dusting-powder; after which a strand of absorbent cotton is to be put between the legs, and held in place by means of a suspensory bandage.

This same prophylactic method also suffices to relieve ordinary cases of soreness. However, when the parts are inflamed, swollen, and discharge considerable moisture, Doctor Blumenfeld (*loc. cit.*) paints them over with a 3- to 6-percent solution of silver nitrate. When dry, zinc dusting-powder is applied freely. It seems that the powders of the stearates of zinc and bismuth would be in order.

ACUTE ECZEMA

Simple forms of acute eczema generally yield to dressings with dusting-powders ("poudres"), with complete rest for the diseased parts. However, Doctor Blumenfeld (*loc. cit.*) gets quicker results from the indi-

cated wet dressings—bandages saturated with greatly diluted solution of aluminum acetate. In the case of wet eczemas, he employs the same solution of silver nitrate as mentioned under Intertrigo (just above). After the condition has passed the most acute stage, he has found that a zinc-paste, reduced with double its weight of petrolatum, gives good results.

FOLLICULITIS AND FURUNCULOSIS

The ordinary, local, treatment of these constantly recurring infections, when multiple, is extremely unsatisfactory, and resort should be had, without procrastinating, to bacterin-therapy. This is the experience of Doctor Blumenfeld, both in his private and present military practice; and he further states (*loc. cit.*) that, while autogenous bacterins not always are readily accessible, reliable polyvalent vaccines render excellent service, and are easily secured.

A systematic course with gradually increasing dosage need not at all be instituted, the author maintains, and he confines himself to merely two injections, with four or five days intervening—for example: a first injection of 300 millions and a second of 500 millions of mixed staphylococci. Not infrequently a rapid recession of the disease is observed after a single rather large-dose injection.

This treatment, according to Blumenfeld, also protects the subjects for a prolonged period against a recurrence.

THE SCLEROTIC (AORTIC) PULSATION AS A SIGN OF SCLEROSIS OF THE PECTORAL AORTA

A new diagnostic early symptom of sclerosis of the pectoral aorta has been announced by K. Trunecek (*Cas. Lek. Cesk.*; cf. *Wien. Med. Woch.*, 1915, p. 43), which he asserts to be reliable. The condition consists in a palpable and visible pulsation in the supraclavicular depression; that is, when no cardiac lesion exists.

When the finger is pressed down behind the clavicle, there is felt a sudden, very intense appulse, or blow, which can be followed up into the axilla. Pressure against the first rib causes this appulse (or, impact) to disappear, as also the radial pulse. Simultaneously there is observable a spreading of the aortic depression over the base of the heart toward the right edge of the sternum. At the first moment, a noise is heard above the aorta, that continues toward the large vessels of the neck; the second aortic sound is clear and full.

This symptom-complex represents the clinical picture of hardening and dilatation of the pectoral aorta. The author has termed it the "sclerotic appulse."

AS TO THE URINE VOIDED BY INFANTS

Doctor Engel, of Berlin, publishes the following data concerning the volume and frequency of urine voided by infants (*Deut. Med. Woch.*, 1914, No. 46): a normally nourished infant ingesting about 800 Cc. a day empties its bladder on an average 25 times; but this may reach 60 or 70 when taking in from 1200 to 1600 Cc. Urinating nearly or entirely ceases during sleep, while it increases after physical and mental activity (in daytime). A single emptying ordinarily amounts to from 10 to 20 Cc.; the greatest volume ranging between 50 and 60 Cc. (mostly nights), but may attain to 70 or even 90 Cc.

TOXIC PROPERTIES OF EMBARIN

Of late, the new preparation embarin is receiving some attention in European medical periodicals and also has been annotated once or twice in these columns. That it is not free from danger, though, appears from the warnings of recent contributors, among them, Merzbach, Germany. More lately, an Italian, Pasine, tells (*Muench. Med. Woch.*, 1914, p. 1808) how, in a woman of 70, embarin gave rise to nausea, headache, cutaneous eruptions, and elevated temperature. He enjoins the greatest caution in its use.

PHYSIOLOGIC ACTION OF SCILLITIN AND SCILLIDIURETIN

The chemistry of scillitin and scillidiuretin is not yet definitely settled; however, physiologically these two principles of squill differ widely. According to W. Kopaczewski, of the Pasteur Institute of Paris (*Bioch. Zeit.* 1914, p. 501; cf. *Ther. Monatsh.*, 1914, No. 12), scillitin kills rats in doses of 1-10 mg., and dogs, in doses of 12 mg. [weight of dogs not given], the heart, in the dogs, being arrested in systole and the lungs inflated. Scillidiuretin, on the other hand, is almost free from toxic action, while effecting marked diuresis; thus, a few centigrams of scillidiuretin will double the output of urine in the case of rabbits.

Miscellaneous Articles

Current Comments by a Country Doctor

NOTES on Dosage.—The writer has been asked why he never lays stress on the dosage of any remedy. His answer is, that rules of dosage are so flexible under such a multiplicity of conditions that virtually the only rule is, "to effect." The generally accepted maximum dose of a drug should always be borne in mind, together with the facts that it is influenced by the weight of the patient and conditions, favorable or unfavorable toward absorption. We also take into consideration the corrective influence of other agents simultaneously administered, as well as possible idiosyncrasy against or toleration for certain drugs. The latter especially in the case of drug-habitués or those who by previous use have become temporarily tolerant. Last, but by no means least, the different rate of metabolism as governed by age must enter into calculation in order to secure accurate and prompt effect.

Another thing that will aid in safe guidance is, an always-present thought of a possible interchange of chemical radicles, either among incompatible drugs or by their contact with the body-secretions. It is not difficult to train the mind so that one's knowledge of chemistry becomes almost an automatic safeguard, at least against gross error. For example, it is not difficult for one to remember that when he deals with the CN radicle it is well to think twice, whether he uses so simple (and often useful) an agent as peach-leaf-tea or a ferrocyanide; both being comparatively harmless bearers of the extremely potent cyanogen, yet, always should suggest possible dangerous decomposition, especially with an Hg salt.

Still, even with all things taken into consideration, it is hard to say that there can obtain either a maximum restriction of justifiable dosage under certain circumstances or a minimum limit of doses for securing therapeutic results. As to exceeding the maximum, in dire emergencies, this has been done deliberately many times by the physician who seeks immediate effect at times of a vital crisis or in cases of accident. In these instances, the one prescribing prefers to fight the effects from a possible overdose of the drug to risking the more probable loss of life through his refusing to adopt heroic measures. The writer has at times resorted to such an active agent even as atropine under such circumstances, and results proved the justifiability of emergency procedure.

The writer knows of a peculiar combination of circumstances under which tincture of digitalis was taken as a "drink". An assistant entered the darkened laboratory to take a dose of cough-medicine from a bottle from which he had been dosing himself all day. Meantime the porter had cleaned up. There was on the spot a bottle of the same size, but it was the carbolic-acid-bottle, and the man took from it a big dose. Fortunately, he did not lose his head, even if careless. Straightway he switched on the light and grabbed the alcohol-bottle, but it was empty. Then, without delay, he grabbed the first tincture available and swallowed a liberal portion of it and also rinsed his mouth with it. It was the tincture of digitalis. This he quickly followed up with an apomorphine injection. The writer's first medical commandment was: Handle no medicine in the dark, read the label twice; also, throw out all doubtful and unlabeled "junk." This little story proves either that there is no maximum dose of digitalis or that all drugs are dangerous and entitled to handling with judgment and respect.

But it is not the fact that maximum doses may be exceeded that is to be emphasized, because, believing that, the tendency is toward overdosage. The smallest amount that will promptly effect the result is the desideratum; and, if a drug is to be given to physiological effect, the rate of absorption as well as of elimination must be considered, in order to avoid a possible cumulative effect; and the administration must be made in divided doses, to obtain the best results. Modification of this procedure will, of course, be

made to a certain extent when giving those drugs which exercise a specific action over certain symptom-groupings with an empirically proven certainty; although, in the present state of incompleteness of our understanding of physiological chemistry in its more delicate detail, in an uncertain way.

Prompt and thorough absorption often is aided by giving the remedies in hot water; in fact, efficiency sometimes thus is doubled. Frequently the only way a patient can be made to drink a sufficient amount of water is by instructing him to take it, either hot or cold, with his medicine; and in many instances water is imperative, especially where the urine shows high specific gravity and hyperacidity. It is strange, but true, that a patient is apt utterly to neglect the specific directions to take a certain amount of water at regular intervals, while, if told the medicine will not "work right" unless followed by a full glass of water, he will do so with absolute certainty.

Briefly, there must be some basis for fixing dosage, and Shaller's rule (a modification of the "Guy's Hospital Rule" and Young's formula) is a most excellent one to go by; still, the modern, up-to-date internist using the accurate therapeutic means at his command will be bound inflexibly by no rule. Thorough knowledge of the action of drugs and of physiological chemistry so far as known, and a skilful adaptation of this knowledge to the individual case, together with constant investigation and search for new therapeutic facts is the secret of successful practice.

The day of subordination of the knowledge of drugs to other branches is vanishing, and, with it, the therapeutic nihilist. The writer trusts that, with the evolution of all medical schools to $(a^2+2ab+b^2)^n$, internal medicine will be given a more thorough exposition than heretofore in the curriculum, and we even may hope to see the specialist in internal medicine hang a few more letters onto his name—if that will do him any good.

Pilocarpine in Malarial Hematuria.—Jaborandi was a useful drug, but, on account or uncertainties of strength in the type-species pilocarpus jaborandi, as well as in the several other varieties entering commerce (with some sanctioned by the U. S. P., as pilocarpus), had the usual disadvantages of all crude plant-drugs, with the additional one of the frequent presence of pilocarpadine in the unofficial species supplied. In pilocarpine we have the most certain and prompt-acting of all diaphoretics. The combination of pilocarpine with the nitrate radicle in pilocarpine nitrate is the most available form for usual administration, and in this salt we have a chemical and a therapeutic correction of the rather overestimated depressant effect of the drug.

The use of quinine in malarial hematuria is a most doubtful procedure, and the proper selection of an antiperiodic and the time to use it is a problem of more or less difficulty at times; but, in this class of cases, pilocarpine is a most valuable aid. Where the hemorrhagic protest of the kidneys is made against their inability to eliminate toxins, the writer thinks of pilocarpine nitrate first, or at least as soon as he has relieved the algid state by means, probably, of glonoin. Please note that we have dropped from a trinitrate (of glyceryl) to a nitrate, but, still, continue the use of the NO_3 radicle with our pilocarpine molecule. Where we desire a stimulating effect, to enhance the action of an alkaloid, it is best used as a nitrate. Thus, the hypodermic-case of many practitioners contains strychnine nitrate instead of the sulphate for the emergency-remedy.

The question of the use, at the same time, of cactoid, aconitine, veratrine or other remedies is governed by the heart action and temperature in each individual instance. As a rule, however, one can give the pilocarpine nitrate alone to effect, bearing in mind that, if for any reason it is necessary to check excess action of the remedy, we have a positive corrective and physiological antagonist in atropine. Possible tendency in some instances toward edema of the lungs is the main thing requiring caution, as pilocarpine has also a stimulant action upon the bronchial glands. The tendency toward great increase of salivary secretion is a factor that seldom will be of importance.

Hematuria is only one of the many conditions in which a quick diaphoretic is indicated, and pilocarpine will start sweating in from six to fifteen minutes when a good initial dose is used. In eclampsia, two or three heavy doses of veratrine and of lobelia, followed by pilocarpine, is a well-indicated treatment, sure to bring quick results. The sweat eliminated under pilocarpine will be acid first, then alkaline, then neutral, usually, thus demonstrating its value in relief of hyperacidity. Copious ingestion of hot water should generally accompany the administration of a "pilocarpine-bath." Some physicians use whisky or brandy in the hot water, and this is, possibly, one of the few conditions in which alcohol is of value medicinally. Next to

eserine, pilocarpine ranks as the most active myotic, hence, is useful in glaucoma, while it is not without value as a diuretic in the small dose, but primarily it is the remedy most certain of all in its action upon the sudoriparous glands.

On Being a Horse-Doctor.—Several problems new to the writer presented themselves when he came to a country location, problems for which he lacked a precedent. But, not being a creature of established precedent to the extent of refusing to act where none existed or was in evidence, he solved them as to him seemed best. One of these questions was, whether to be or not to be a "horse-doctor" or, rather, horse-surgeon.

Now, despite the fact that it is well conceded and a matter of common knowledge that the veterinarian—meaning the modern veterinary graduate—is a man of scientific attainment justly ranking among those of the learned professions, still, the average M. D. has a horror of being considered a "horse-doctor." Thus, when the first call came to act as surgeon to a mule which had had an unfortunate encounter with a barbed-wire fence, it was answered by refusal, upon several grounds. It was explained that knowledge of equine anatomy was lacking, of comparative anatomy not retained, and, lastly and emphatically, that the relator was no horse-doctor. Pleading still continued, when the little partner finally decided the matter. "Doctor, you know there is no veterinary surgeon within miles, and those poor creatures have to have that mule to make a living; besides, you are not a dentist, either, but you would not make anyone go nine miles at night to have a tooth pulled." That settled the matter.

Although not being a horse-doctor, frontier raising enabled supervision of throwing and "hog tying" that hybrid "critter." The artery was found and tied—don't know to this day what vessel in a mule it was. When the subject of remuneration was approached, the money was declined. It was explained that it was a neighborly act, case of ox or ass falling onto a barbed wire. Doubtless, had barbed wire been used in Mosaic times, it would have received mention in the Pentateuch. The impression was conveyed by implication that sewing up a mule was not the legitimate work of an erudite and learned surgeon of ripe experience in repairing human traumata.

This precedent established, though, it was not long before other injured beasts—cows, mules, horses—were, from time to time, brought as patients; and now, if not engaged with the human portion of our clientele, the surgery is being attended to and also charge made for it. Strange to say, the money is immediately forthcoming. It is a peculiar fact that many people will pay cash to have a mule's artery tied, but stand off a doctor until cotton-season for treating a sick baby. The horse-surgery money is something like the minister's wedding-fees—extra money, velvet, so to speak.

At times, the matter of seeing what credits would be allowed on a D. V. S. course has been seriously considered. One could keep the horse if treatment were not paid for, while many a human patient is so undesirable that one would not have him even if chattel-slavery were still permitted.

A. L. Noursé.

Sawyersville, Ala.

SOME THERAPEUTIC "KINKS"

I enjoy every page of every issue of Clinical Medicine, from editorials to advertisements. The scientific papers, the gleanings, the queries, the comments; but most of all I like the messages from the firing-line, the direct, roughly written tales of success and failure from the man who drives the long road to reach the bedridden mother or the fevered child. Those fellows in the trenches! Let's hear from them in greater and greater numbers. We all become accustomed to certain treatments, remedies, and procedures that we have found will benefit a majority of given cases. We owe it to the other boys to trade them something we know for something they know. Everybody speak up. Here's my mite for this time.

Erysipelas.—If you want to stop it right where you find it, simply swab on a mixture of two-thirds castor-oil and one-third flexible collodion. The disease will not spread the least bit farther and the skin will die and peel off, resolution setting in from the moment you make your first application. Iron internally.

Eczema.—The best local application for this annoying trouble is the following; it stops the itching at once and favors the restoration of normal skin:

Salicylic acid	grs. 15
Citrine ointment	dr. 1
Sulphur (precipitated)	grs. 30
Ointment of zinc oxide, enough to make	oz. 1

In this connection, remember that many inflammatory eruptions are aggravated by a

blood stream loaded with toxins and ferments from the digestive tract. Therefore, prescribe saline laxatives and intestinal antiseptics. For children with feverish eruptions, dissolve a heaping teaspoonful of Abbott's Saline Laxative in two-thirds of a glass of water and direct a teaspoonful to be taken every hour or half hour. It is a restful refrigerant that is better than opiates and sedatives.

Headaches.—They annoy so many of our patients, and, yet, most of us know how futile and useless is the average headache-tablet; besides, these remedies are habit-forming and are sold over every counter. Here is a remedy in liquid form that will relieve in almost every case; the ingredients are old friends of yours, but, combined in this way, they constitute the best all-around relief for neuralgic pain that I ever have tried:

Antipyrin	dr. 1
Caffeine citrate	grs. 30
Sodium bromide	drs. 2
Hot water	ozs. 2

Dose, one teaspoonful every hour, for three doses, if needed.

"Itching Piles," or Eczema of the Anus.—Swab with pure phenol. You are sure to win the gratitude of your patient.

After silver-solutions have failed in mucous patches of the mouth, apply pure tincture of myrrh. You'll like the results.

H. S. Brevoort.

Hutchinson, Kan.

ANENT "DAGOES" ET AL

Anent S. J. Brownson, who in the April number of Clinical Medicine, under the caption of "The War Disease and Its Prevention," dwells upon divers wide distinctions.

Socialism (of which I am not an exponent) aims at a state in which, as far as is possible, the Golden Rule will become a tangible reality. Socialism admits of no national distinction, nor racial. It considers the labor of the ditch-digger as of equal worth to that of the machinist, chemist, physician, or professor.

Yet, Doctor Brownson, who is a Socialist candidate for Congress, bewails the fact that "dagoes and negroes are chosen at the packeries, instead of whites."

In the West, my name would mark me as a "greaser," notwithstanding that I am an American whose parents came from the country from which sailed the dago who reached San Salvador in 1492.

I am certain that such names as Gorgas, Da Costa and Montoserri are not typically American. As the Latins were here first, I fail to see a reason for an apology for the privilege of being an inhabitant of La America del Norte.

I believe it was Amiel who once said, "Sympathy is the first condition of criticism." I trust that Doctor Brownson will be elected. A Socialist usually is a thinker. We need a few more thinkers in Washington.

Francis B. Mendoza.

Boston, Mass.

GERIATRIC SOCIETY ORGANIZED

We are pleased to announce that on June 2 the New York Geriatric Society was organized, and elected the following officers: President, Robert Abrahams, M. D.; vice-president, Edward P. Swift, M. D.; secretary, I. L. Nascher, M. D. (103 88th Street).

This is the first society ever organized for the study of senile conditions.

Those of our readers who are interested in this subject should communicate with Dr. I. L. Nascher and secure all copies of reprints and reports that deal with this society.

THE PASSING OF ALCOHOL

In reading the May number of Clinical Medicine, I was particularly pleased with the editorial entitled "The Passing of Alcohol," and, among the many good and interesting things presented, this one strikes me as being the most useful and goodly; and, yet, I myself like a glass of beer as well as anyone and have a draught of it occasionally. Nevertheless, any doctor who has any practice at all knows that drink causes all manner of diseases, and is the cause of all kinds of crime and of untold misery, suffering, and poverty.

Universal prohibition is coming. When people, like yourself, who represent and to a greater or less degree create an opinion among the medical profession, come out in such a strong and positive way as you have in this editorial, you are helping to free our country, and the world, from this greatest of all evils—the evil of drink.

I wish to compliment you upon your position and your courage, and hope you will continue in this work. You have with you the good will of many men like myself, who are

not prohibitionists in the strict sense of the word.

ZENO G. LOGAN.

Ophir, Itah.

COPPER ARSENITE IN BOWEL TROUBLES

I see but little reference to the use of copper arsenite in the treatment of bowel troubles, so, take the liberty of writing a few words on its uses. In the first place, this remedy is of more value during early childhood than later in life; not, however, because benefit will fail to follow its use in persons of mature years, but, for the reason that older people can tolerate other and even more potent remedial agents not well borne by young children. Among the latter, I may mention opium in its various forms, which indiscreetly prescribed for children, has claimed numerous victims. In spite of this drawback, opium still maintains its hold, because it relieves pain, lessens the frequency of bowel movements and gives temporary comfort to the patient. However, it is a dangerous remedy for children and should always be given with caution.

At the period of dentition, the enteric affections of children are likely to be of the severest character, and these are readily brought on by changes of temperature, improper food, insanitary surroundings, and a disregard of the simpler rules of hygiene. Whatever their cause, these diarrheal troubles confront us constantly, and we are called upon to treat these patients as best we can.

While a gastrointestinal infection may subside within two or three days under proper dietetic restrictions, there is a distinct tendency for the enteric condition to become more aggravated, with development of a typical ileocolitis of indefinite duration. We frequently come in contact with cases of this kind during the hot weather of late summer. The laity generally look upon these attacks of summer-complaint as of protracted duration and likely to be relieved only by the advent of cooler weather. Unfortunately, many of these little sufferers perish before that period arrives.

It is in these chronic conditions that copper arsenite is a life-saver. It is not the remedy for the acute stage of the disease, nor is it indicated when the essential trouble is in the stomach and is associated with nausea and vomiting. Under such conditions, other remedies, more specific and directed against the gastric affection, are indicated.

However, when the disease progresses beyond the stomach, and the bowels become involved, as evidenced by a semichronic, dysenteric discharge, showing evidences of inflammatory involvement of the large intestine, together with increasing prostration and debility, then copper arsenite, in small frequently repeated doses, will turn the tide and many times bring about a favorable issue. I also find this remedy of great value in true cholera infantum, when there is great prostration and nausea, and watery stools become numerous.

Copper arsenite is antiseptic, disinfectant, stimulant, and mildly astringent—a quartette of virtues not possessed by any other drug employed in these affections of the intestinal canal. It markedly inhibits bacterial growth and undoubtedly acts as a stimulant of the mucosa and intestinal glands, thereby aiding in the restoration of normal function, while lessening the osmotic drain of fluid.

Finally, it fortifies the nervous forces, through increasing the resisting power of the tissues of the alimentary canal.

In copper arsenite, we certainly have one of the best remedies for the treatment of inflammatory diarrhea of this nature. Unfortunately, it too often is forgotten—too little used.

In conclusion, I take pleasure in telling you that CLINICAL MEDICINE always contains many suggestions of helpfulness to its large number of readers. I appreciate the journal for its predominantly short articles, concise and to the point, which come in handy in everyday practice. Deliver me from those long-winded, socalled scientific papers that make one forget the text before having winnowed the grain from the chaff, and leave one in the dark concerning the most essential thing for the clinician—the treatment.

A. J. CRANEE.

Pasadena, Cal.

[Copper arsenite is indeed one of the best things we have, especially for infantile diarrheas of various kinds. Used in connection with, or alternation with the sulphocarbolates, it will cure some of these severe forms of diarrhea which refuse to yield to any other remedy. Copper, as we now know, is a powerful bactericidal remedy, having a peculiarly deadly effect upon many low forms of life, and yet it can be given in such minute doses as to be absolutely nontoxic so far as the child itself is concerned. When the baby cannot tolerate ordinary medicines, it can take copper arsenite without trouble. A

supply should be in every physician's pocket-case, ready for immediate use.

Of course, we like Doctor Cranee's nice boost for CLINICAL MEDICINE. Like him, we enjoy most of all the short, snappy, point-ful articles, coming right from the firing line of practice. We want more of these, and every reader of these lines is earnestly invited to send in his batch for our next and succeeding issues.—ED.]

CHAPARRO AMARGOSO

I desire to call your attention to a most valuable drug, the chaparro amargoso, with the earnest hope that you will look it up and give the readers of the journal the results of your investigation. The remedy is listed in some pharmaceutical catalogs, and I find reference made to "Hooker" as an authority relative to its therapeutic uses. I have found the fluid extract very valuable in all atonic conditions of the alimentary canal; but its action seems to extend farther, for it is a nervine, as well as digestant, of no mean quality in those brokendown subjects for whom I have prescribed it. Those who have long complained of their stomachs, indigestion followed by diarrhea, bloating, and the like, those who are the "chronic of the chronics," with a soured disposition and who often vent their spleen against the medical profession in general, and the last-tried doctor in particular, are the ones who are greatly benefited by this drug, when given in 30-drop doses, three times daily. In some respects, this drug has an action like condurango (or its glucoside condurangin) upon the intestinal canal.

A. H. COLLINS.

Tulsa, Okla.

DIARRHEAS IN INFANTS

If the mother of a child suffering from infantile diarrhea will call the doctor before the infant is moribund and the doctor will follow the method described below, he will save most of these little patients.

First purge the child briskly with calomel, giving 1-10 grain every twenty minutes for ten doses. Follow this by castor-oil or a saline laxative. The latter is better and may be given from the nursing-bottle, flavoring with orange or lemon, to mask the taste.

While the calomel is getting in its work, wash out the large bowel with normal saline solution. This will remove fermenting mucus, together with the toxins that are poisoning the child. This bowel flushing should be done at least three times a day at first, reducing the number as the baby improves; but, in any case, it should be kept up as long as mucus is found in the movements.

All feeding should be stopped for from twelve to twenty-four hours, plain-, barley- or rice-water excepted. When feeding is resumed, the milk should be very much diluted, if the baby is bottle-fed, gradually working up to full strength.

Give the dosimetric trinity, as indicated, after the bowels have been thoroughly cleaned out; also the three sulphocarbolates aplenty. Don't be afraid of the latter. In most instances, the bowel flushings control the pain and the diarrhea.

Of course, it is necessary for the mother to cooperate with the doctor; for, upon her you must depend for the giving of medicine, performing of bowel flushings, feeding, bathing, and all the rest. She must be a stayer.

W. H. SNYDER.

Royal Oaks, Mich.

THE HARRISON ANTINARCOTIC ACT

The passage of the Harrison antinarcotic bill is a positive slur and insult to 98 out of every 100 physicians. It is a graft. Every licensed physician in the state (any state) has a state certificate from the board of health, certifying that the holder has been graduated from some medical college, has passed the required state examination, and is qualified to practice medicine. I believe the Harrison Law is unjust and unconstitutional, and, therefore, should be repealed. If our lawmakers want to do something to protect the public, why don't they legislate against Osteopaths, Chiropractics, Christian Scientists, faithhealers, and the like.

How much harm has been done and how many lives have been lost by drugless healers? More than our lawmakers who passed the Harrison Law know. Also, why not legislate against druggists prescribing over their counters without a physician's license.

What becomes of the $20,000 that Illinois physicians send to the internal-revenue collector? Who gets it? How is it applied? Every individual in and out of the profession has a right to know, for this is public business. If a taxpayer desires to know how his tax is divided and applied, he may find out.

The sooner this law is repealed, the better. Physicians really are handicapped in doing their full duty to patients, besides, it brands all of us as rascals. If every physician in

every county will interest himself in this matter and get busy, we can bring about the repeal or at least a modification of this unjust, slanderous law.

Each county society should formulate and each physician in the county sign objections to the Harrison Act and present these objections as their protest against the act, and instruct our lawmakers to reconsider—yes, to repeal the Harrison Law; because, as the objections would include, it is unjust, offensive, slanderous, to us as graduated, licensed, experienced physicians, and is unconstitutional. It reflects upon our character and qualifications. What do other physicians think about it?

"KIRK."

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[Doctor, you are wrong. This law was greatly needed and will do great good. Read our comment on the next article.—ED.]

THE HARRISON ANTINARCOTIC LAW NEEDS AMENDING

The Harrison Antinarcotic Law seems to continue bringing forth comment, speculations, and advice as to its workings and nonworkings, requirements and nonrequirements.

To begin with, the law itself manifestly is wrong as it reads and as it is expected to be lived up to. However, it is there, and, as in a case of fully developed measles, we must treat it symptomatically as the various conditions begin to show themselves. On the other hand—to continue the simile—it is too bad that the disease wasn't aborted before it reached the stage of ulceration. Yet, the situation is so obviously simple that no one should need to fear that in time and under proper treatment a crisis will not be reached, after which a healthy recovery and normal convalescence also are assured.

The entire affair—the original moving incentive leading up to the present development, the method by which the law was drafted, and its final adoption in its present form—admits of several analyses.

One outstanding fact of a close scrutiny of this law is, its unmistakable unconstitutionality as a whole. This, however, does not signify that there are not certain features that might come logically within constitutional bounds.

Such a law, to become wholly constitutional in its entirety, should, in a free country, reasonably, first be submitted to a referendum; and this was not done. One unfortunate feature of the law is that it unqualifiedly deprives the private individual of his rights as a citizen. In his day, the pioneer kept in his cabin a medicine-chest equipped with emergency-remedies, while nowadays the modern factory also provides a complete emergency-outfit. The pioneer had his bottle of laudanum and spirit of camphor; the factory medicine-cabinet up till now contained a solution of cocaine, to be used when removing particles from the eye. But now the Harrison law makes a criminal of the private citizen and of the shop-owner who attempts to provide against certain contingencies.

Such an interpretation (and such interpretation, so the writer believes, has been put upon this law) seems to be an encroachment upon the rights of the citizen. Neither the pharmacist nor the physician can afford to be so egoistical nor can the lawmakers afford to be so narrowminded as to deny that many laymen are as capable of understanding and of acquiring a working-knowledge of the legitimate use of drugs as are the physicians and pharmacists themselves. And their right to exercise this talent should not be curtailed.

There can be little doubt but that this law should be amended as soon as possible; that it should be so modified as to serve its intended, real purpose, namely, the prevention of illegitimate traffic in habit-forming drugs, while at the same time allowing due freedom and liberty in the exercise of citizenship to competent persons.

F. N. RICHARDSON.

Cleveland, O.

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[The Federal Antinarcotic Law has its faults, but most of these inhere in the *regulations* rather than in the law itself, as we have already pointed out. Unfortunately, no measure of this kind can be put over to destroy an ancient evil that does not do injury at the same time to thousands of honorable men. The effort of the medical profession should be addressed to the reduction of this injury to the lowest possible degree compatible with the efficiency of the law. We regret that our medical societies generally have been indifferent to the manner in which this law is administered. Every state society should have a narcotic committee to protect the interest of the medical profession while insuring the efficiency of laws of this character, whether state or national. The physicians of this country are not asking for license to do wrong. They are anxious for good narcotic acts, which will suppress this traffic; but they want these acts to be clean, square,

and fair, and untinctured by any suggestion of class legislation.—ED.]

SOME NEW HARRISON-LAW RULINGS

Several new rulings under the Harrison Antinarcotic Law, which are of great interest to physicians, have recently been issued. Inasmuch as the Act is being rigidly enforced by the Government, and numerous physicians have been arrested in various parts of the country on account of failure to live up to the rules made by the Commissioner of Internal Revenue, it behooves every physician who wishes to keep out of trouble, to be fully in touch with these regulations.

One new regulation compels physicians to limit the amount of narcotics prescribed to what is immediately required, or, in lieu of this, to specify on the prescription the reasons for furnishing the patient with an unusual quantity of the drug. This regulation (T. D. 2200) reads as follows:

The act of December 17, 1914, provides that a physician, dentist, or veterinary surgeon registered under the provisions of the law, may dispense or prescribe any of the narcotic drugs coming within its scope to patients upon whom he shall "personally attend" and "in the course of his professional practice only."

This office construes the words "dispensed," "distributed," or "prescribed," used in the act, as synonymous, and that a physician, dentist or veterinary surgeon "dispenses" within the meaning of the law when he writes a prescription calling for any of the narcotic drugs to be filled by a registered dealer.

While the law does not limit or state the quantity of any of the narcotic drugs that may be so dispensed or prescribed at one time, it does provide that it shall be unlawful to obtain by means of order forms any of the aforesaid drugs for any purpose other than the use, sale, or distribution thereof in the "conduct of a lawful business in said drugs or in the legitimate practice of his profession." Further, that all preparations and remedies containing narcotic drugs coming within the scope of this act are "sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this act," and it is further provided that it shall be unlawful for any person not registered to have in his possession or under his control any of the drugs, preparations, or remedies "which have not been prescribed in good faith by a physician, dentist, or veterinary surgeon registered under the act."

Therefore, where a physician, dentist, or veterinarian prescribes any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict or habitué to effect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veterinary surgeon should indicate on the prescription the purpose for which the unusual quantity of the drug so prescribed is to be used. In cases of treatment of addicts these prescriptions should show the good faith of the physician in the legitimate practice of his profession by a decreasing dosage or reduction of the quantity prescribed from time to time, while, on the other hand, in cases of chronic or incurable diseases such prescriptions might show an ascending dosage or increased quantity. Registered dealers filling such prescriptions should assure themselves that the drugs are prescribed in good faith for the purpose indicated thereon, and, if there is reason to suspect that the prescriptions are written for the purpose of evading the intentions of the law, such dealers should refuse to fill same.

Other regulations (T. D. 2114 and T. D. 2115) further limit the professional use of narcotics, which is now restricted to physicians, veterinarians, and dentists. The first of these regulations reads as follows:

The fact that registration is limited to certain named persons indicates that there must be a power of discrimination vested in collectors of internal revenue as to who shall be registered and from whom special tax may be received. Therefore, persons not legitimately engaged in the exercise of their trade or profession cannot legally register under the terms of this Act. For example: A party must be a legitimate producer, importer manufacturer, seller, or distributor of the aforesaid drugs, and likewise a physician, dentist, or veterinary surgeon can register under this act and dispense these drugs "in the course of his professional practice only." It also follows from the express language of the Act that such physician, dentist or veterinary surgeon can prescribe such drugs when he "has been employed" to prescribe for the particular patient receiving such drugs," and upon whom he "shall personally attend in the course of his professional practice only," and such prescriptions must be made "in the legitimate practice of his profession," and then only when "employed to prescribe for the particular person receiving such drugs."

The above quotations from the law indicate the correct limitation upon the professional prescription or distribution of said drugs by persons whether registered or not.

It is apparent from the foregoing that the duties of collectors and other internal revenue officers do not end, under the provisions of this Act, with simple registrations. If parties secure registration through misrepresentation or fraud, such registration is null and void and does not protect them from prosecution for the illegal use of these drugs, and it is the duty of collectors and other internal revenue officers when such cases are discovered to investigate the same, and where the law has been violated in line with the foregoing, to seize and proceed to forfeit the prohibited drugs illegally in possession of such parties, and recommend such persons to the District Attorney for indictment and prosecution.

The foregoing has special application to those persons who, registering as physicians, prescribe or distribute narcotic drugs or preparations on receipt of mail orders received from socalled patients, or who under the laws of the State or under municipal regulations, are not permitted to practice medicine.

In order to make the preceding regulation effective, the Commissioner of Internal Revenue has issued the following (T. D. 2115):

In issuing registry numbers and special tax

stamps under the provisions of the Act of Congress, approved December 17, 1914, known as the Harrison Narcotic Law, collectors of internal revenue will require persons making applications to state, under oath, in the blank space on Form 678, or if not sufficient space on the line for that purpose, it should be in the form of an affidavit attached to the application on this form, that they will engage in administering, dispensing, or prescribing narcotic drugs only in the legitimate practice of medicine, dentistry, or veterinary surgery; or will engage in the business of producing, importing, manufacturing, compounding, dealing in, dispensing, selling, or distributing, as the case may be, only those narcotic drugs for which they are duly qualified by law, e. g., "The undersigned is now engaged or on and after————will engage in the legitimate practice of medicine (dentistry, or veterinary surgery), and is, or are, duly authorized by law to administer, dispense, or prescribe narcotic drugs," or "The undersigned is now engaged or on and after————will engage in the lawful business of producing (importing, manufacturing, compounding, dealing in, dispensing, selling, or distributing) narcotic drugs."

Another regulation, issued on June 12, 1915, makes it necessary for physicians, dentists and veterinarians to secure separate licenses and registrations for every place of business which they may have. Heretofore, such practitioners were not required to register and pay a special tax for each locality. This regulation (T. D. 2118) reads as follows:

Art. 1. The second paragraph of this article is hereby amended, effective on and after this date, to read as follows:

If the applicant has more than one place of business, or if, in any case, the applicant is engaged in more than one profession, or business where any of the drugs above described are made, stored, or dispensed, a separate application for registry must be made, and a special tax must be paid, in each such case.

We shall take great pleasure in giving any of our readers any assistance we can in explaining the Federal Antinarcotic Law and its regulations. New regulations are being issued from time to time and it is very important that every practitioner be fully conversant with their meaning.

EMETINE IN PELLAGRA

Some time ago I wrote you that I believed pellagra could be cured with emetine hydrochloride. Since my little article appeared in CLINICAL MEDICINE, I have had many inquiries from members of the "family" regarding the method used. I write this letter to explain, and to urge others to give emetine a trial. I believe if we follow up this line, we shall arrive at a much more satisfactory method of handling this troublesome malady than we have had heretofore. Thus far, I have succeeded in curing positively every case that I have treated, and I rarely use anything except emetine hydrochloride.

I have given the emetine internally, in 1-64-grain doses, every two to four hours, the dosage and frequency of administration varying according to the diarrhea. I also frequently give quinine hydrobromide, in 2 1-2 to 5-grain doses three times daily, the dose depending upon the prominence of the nervous symptoms. Occasionally I use a small quantity of urotropin, together with digitalis as a diuretic.

While I am not prepared to pass upon the etiology of this disease, nevertheless, I am impressed with the hypothesis presented by Dr. E. M. Perdue, on page 217 of the March issue of CLINICAL MEDICINE. I believe his theory is the correct one. I also believe that if emetine hydrochloride and quinine hydrobromide were presented in ampule form and administered hypodermically, that the disease would be eradicated more quickly than when the remedy is given by the mouth.

I hope that physicians, now employing other remedies which are not proving satisfactory, will try out this method of treatment, and report through THE CLINIC.

A. D. HILTON.

Grannis, Ark.

[Emetine hydrochloride is already available in ampule form. We believe that Doctor Hilton is right in advising that it be given subcutaneously, since, thus administered, results are likely to be more rapid and more effective than when the remedy is administered by mouth. Unfortunately, any considerable quantity of emetine taken orally, is prone to produce irritation of the intestinal canal, and since diarrhea is practically always a symptom of this disease, we naturally wish to avoid further disturbance of the bowel. It is possible that smaller doses of emetine hydrochloride than those usually advised, would prove effective. For instance, instead of giving 1-2 grain a day subcutaneously, it might be desirable to inject 1-8 to 1-4 grain at a dose, well diluted, so as to reduce the likelihood of local irritation. The dosage could be gradually increased.

Quinine hydrobromide can be given subcutaneously if thought desirable, but we are not inclined to advise it. It may be taken in small doses by the mouth, or, if the physician really prefers to give it subcutaneously, probably he will be most pleased with the quinine and urea hydrochloride, which, as we all know, is a local anesthetic as well as a valuable agent for systemic effect.

We hope that other physicians will follow out Doctor Hilton's ideas and let us know what results they obtain.—ED.]

AN EXPERIENCE WITH EMETINE IN PYORRHEA

I can report favorably upon the only case of pyorrhea alveolaris in which I have used emetine. The patient was a young man suffering from a fairly advanced case of pyorrhea. He had been under the care of a dentist who knew about the emetine treatment, but, not understanding how to use it, had never given this drug a trial.

When the young man came to me, I at once gave him a hypodermic injection of 1-2 grain of emetine hydrochloride, repeating this dose on four successive days, introducing the solution into the arms and the back. Meanwhile I asked the dentist to continue the local cleaning-up process. The soreness disappeared, also the spongy condition of the gums, and at the present time the patient says, "My whole mouth feels a whole lot better."

No disturbance of the stomach followed this treatment, and there was little, if any, soreness at the point where the needle was inserted.

D. W. LIVERMORE.

Foxboro, Mass.

[This is but one of many reports of success with the emetine treatment, which is attracting the attention of the dental profession of this country as nothing heretofore introduced for the treatment of pyorrhea has done. This writer had the privilege of attending an "emetine clinic" held in New York some days ago. While, undoubtedly, there was a divergence of opinion as to the exact scope of the field of emetine in pyorrhea, the interest in this drug was remarkable, and the reports of success obtained with it were so flattering that they hardly could fail to convince any fair-minded observer that in emetine we have the sought-for cure for this disease.

Of course, it must be remembered that, after the roots of the teeth have been largely destroyed and the gum-tissue absorbed, we cannot restore the mouth to its former condition. To get best results, these cases must be treated early; but, even when the disease is well advanced, through the use of emetine (in association with proper dental treatment), remarkable benefit may be expected.

Dentists and physicians should cooperate in the treatment of these cases. Doctor Livermore has gone about the matter in the right way.—ED.]

PERFECTION OF MODERN HOSPITAL TRAINS

From German sources, we get the following detailed description of a hospital-train, in operation, such as now are in quite general use for the transportation of the wounded soldiers of the armies of Germany and Austria-Hungary; information which no doubt will be read with interest by members of the medical profession.

Ordinarily these "lazarets on wheels" provide on an average 250 beds, and each coach (converted 4th-class order) holds 5 lower and 5 upper berths, arranged lengthwise on one side of the car. The kitchen-car is placed in the middle of the train. For each hospital-coach there is a "sanititian," who looks after the feeding of the patients, directs the nursing, and sees to it that the doctors' orders are carried out. To such a hospital-train there are assigned three or four physicians, so that each has from 70 to 90 beds under his control; while each is accompanied by a nurse (mostly these are "sisters" of religious orders) to assist him. One car is fitted up as a perfect operating-room in the most approved style; but, minor surgery can be performed in the bed-coaches. These trains are lovingly referred to as "Samaritans"; however, because of their great length, jocose soldiers call them tapeworms.

Before starting for the front, the entire train is cleaned and scientifically disinfected, surgical and medicinal supplies are replenished, and the kitchen is provisioned for a two-weeks' period, not forgetting plenty of drinking-water. When all is ready, headquarters at the front is telegraphically notified, which thereupon wires orders as to departure and destination.

Of course, each coach is liberally and conspicuously decorated with the red Geneva cross, even the roof, for the benefit of enemy airmen. On the trip out, the time is occupied by getting everything in readiness—arranging the operating-room, sorting the medical supplies and distributing them to the coaches, fixing up the berths, arranging for the various grades of diet, and so on. Besides, the head surgeon, by systematic talks, thoroughly schools the personnel in their difficult and manifold duties.

Naturally, these costly hospital-trains are reserved for those more seriously wounded and the very sick, and these victims are

concentrated at railway-stations, and also nearby field lazarets, not too far in the rear of the firing-line. In anticipation of the train, the patients have been classified according to condition, and those fevering or suspected of having an infectious disease are kept back or at least are placed by themselves in the rearmost coach. Also, every patient has been tagged, and attached to his garments is a succinct written statement of the nature of his injury or disease and of the treatment given. As soon as arrived, the "good Samaritans" hasten to transfer these sufferers, handling them with the greatest gentleness possible and speaking soft words of encouragement. Then, we are told, these pitiable victims of a still crude humanity, as they are deposited upon their softly yielding bed in the nicely warmed room, gratefully whisper, "O, this is like heaven!" Picture to yourselves that fearful life in the trenches!

Instantly the train-corps of physicians, nurses, and sanititians get into action. The patients are undressed and provided with fresh nightshirts and warm stockings. All their garments and other belongings are numbered to correspond with their berths and transferred to the baggage-car, whence they go to the respective hospitals, and there are orderly stored so as to be readily accessible. Even in these matters, orderliness and cleanliness are the watchword. Meantime the cooks have been getting ready cauldrons of hot bouillon and light foods, and the men are strengthened with warm, nourishing drink and food.

Only now the real work of the medical attendants begins. Temporary dressings are removed, new ones are applied, needful cleansing spongings are done, and minor operations are performed; while men requiring major operations are carried to the operating-room car—but this only when the train is not moving; the latter sometimes even being specially held, on a sidetrack, for that purpose.

The work is most arduous and the staff get very little time for sleep. The surgeons, we are told, quickly learn to adjust themselves to the swaying motion of the (slow-moving) train and, standing on the step-ladder, are able, in many instances, to dress nicely the wounds of men occupying an upper berth; a hanging-strap for the left arm often serving to steady them. For more difficult dressing, the bed, with the occupant, is lifted out and set in the aisle.

And here is a picture of the human side in this heart-rending business. The train with its piteous burden is now rolling over German lands—a station in Germany—a halt. An aged man and woman are seen hastening toward the depot. On the platform of one of the cars they espy a surgeon on the lookout and excitedly call out, "Where is car No. 10? Our son, we are told, is there." They had received telegraphic advice. The good doctor tells them to follow, and meanwhile cheers the anxious parents by telling them that their son has been decorated with the iron cross, and that his wounds are not fatal. The thousands of touches of this kind, repeating themselves in innumerable forms, serve to show how today civilized nations are trying, by sympathetic foresight, to mitigate the horrors of war—which, it seems, the human race can not as yet entirely banish from the face of the earth.

Thus the surgeons and nurses are kept busy during many weary and wearying hours, until, at last, they get a chance to meet and sit down to a refreshing meal in the dining-car. The medical attendants now may retire, to catch a few hours of much-needed sleep; but, the chances for this are precarious. Hardly dozed away in a light nap, there rings the electric bell (installed all over) of the head surgeon, and the sanititian informs him over the telephone that the wound of a certain patient has started bleeding. Hurriedly he throws over his shoulders the manteau and makes his way to the sick soldier, again and again crossing over the storm-swept platforms as in the chill night he passes through car after car of that endless hospital-train. The necessary service is performed—and once again the right of the God of War to his victim has been disputed.

The journey, mayhap, is a long one, and meanwhile the condition of a number of the patients has grown threatening. The sanitary authorities at the first suitable town ahead are telegraphically advised, and they, fully equipped, await, at the station, the train, to take off the men and convey them to a hospital.

When the train arrives at its destination, it is met by an immense number of stretcher-bearers and automobiles, and a sanitary corps, these also having been notified by wire. Experienced physicians supervise the unloading of the wounded and direct their distribution; there being present many relatives and volunteers, prepared to take charge of them for private nursing.

After the routine documents and vouchers are made out and signed and reports are delivered, the now empty train is switched

aside, and the work of making it sanitary and replenishing supplies is started, the same with which this account began.

Latest reports have it that, in view of the ravages of typhus and typhoid fever in Serbia, as also in the Slavic provinces to the north, going hand in hand with the terrible prevalence of the infection-carrying body-lice, particular precautions now are being taken in cleaning, disinfecting, and freeing from lice and fleas all cars coming from the entire eastern seat of war, as well as from Serbia.

A. G. VOGELER.

Chicago, Ill.

FROM THE FIRING LINE

Among the officers and men along the trenches, there is a sort of anonymous conviction that the heaviest work of this war is yet to come, and that all our months of experience are only preliminary. In the hospitals, everyone seems to be conscious that the work before us will be more important and call for greater efforts, and surgeons everywhere are looking forward to diminish the obstacles and facilitate the rapid change of the wounded to the rear.

On a recent occasion, one of the receiving hospitals cared for, and passed to the rear, 600 wounded men, all within a few hours. The system has become so complete that a large number of surgeons and stretcher-bearers were concentrated at this point, and hardly before the last gun was fired they were on hand to pick up the wounded. The charge of the Germans had been exceptionally severe and persistent; and, when they were driven back in the front, they came back on either flank in such numbers and with such impetuosity that our troops fell back, although later they returned and regained the ground.

The wounds which were dressed were of every description, but head-wounds seemed to predominate. From the bayonet charges, there were cuts and bruises over the upper parts of the body, and most of the wounded bled profusely. This added to the confusion. The men themselves oftentimes were dazed and, although able to walk, did not know exactly where they were wounded.

This event, while not particularly unusual, showed how perfectly the system already had begun to operate, although miles away at headquarters notice was received that the Germans were massing in great numbers at a certain point, and, to meet their charge, orders were given to every available brigade in the neighborhood to concentrate along that line. The receiving hospital being very well situated, it was decided to keep it where it was, even if retreat were forced upon us.

The charge was made, with some little delay, and our magazine-guns did fearful execution, but seemed to have checked only in a slight degree the furious combat. The preceding artillery activity had indicated pretty clearly about where the charge would be the most severe, the supposition being that the line was weakest at this point; but, fortunately, a large force of men had arrived the night before and were waiting for distribution about three miles away. These, in a few moments, were on their way and were able to take part in the conflict, and did good work. The lines of the English and Canadians, which probably extended over 120 miles or more, were supposed to have about 2000 men to the mile in the trenches and back of them. At times this number is diminished, but the excellent roads and telephone facilities make it possible to concentrate at almost any point from 4,000 to 5,000 men; and this holds the Germans in check, although they probably adopt the same tactics in moving their men up and down the lines.

In retaking the lines, often the supervising surgeon goes down, to determine which is the most sanitary and also how, in case of a defeat or charge, the injured can be brought back in the most available way.

After the charge referred to above, I went over the battlefield and trenches which had been retaken and was horrified at the number of dead on both sides. Most of the wounded had been taken away and those who were likely to die had been removed out of the danger-zone a little, propped up on the ground and made as comfortable as possible, but the winrows of dead bodies were shocking to see, even to a veteran accustomed to sights of this kind.

The burial parties had begun their work, and long trenches, four or five feet deep, were filled with the bodies of friend and foe, indiscriminately thrown in, in every way and shape. It was a horribly gruesome task. There seemed to be very little effort to discriminate between the dead bodies or to remove any clothing. Guns, pistols, and bayonets were thrown out in a heap on the ground; the caps, overcoats, knapsacks, and all, everything went in in one promiscuous heap.

A sergeant apparently was taking notes of the number and other little data, particularly of the English and Canadians or of someone

who evidently was an officer. The trenches were about 20 or 30 feet long, 4 or 5 feet wide, and about the same depth, depending upon the hardness of the ground. They were covered with two or three feet of soil, and a few boards were put up to mark the boundaries. Then another trench would be dug several hundred feet away; this being governed, evidently, by the relative ease of making the excavation.

Many of the trenches had been broken up by the bursting shells, and some of these were utilized as trenches for the dead on the German side, new trenches being established by our men. It was necessary that the trenches be free from every obstacle and be located where they could be reached, either by day or by night, without extreme danger.

Formerly the receiving hospital floated a Red-Cross flag. This, instead of being a protection, was not unfrequently a target for German shells, and severe casualities followed. Now the hospitals have little red flags, discernable in the day time, and a red lamp in the night. When enemy air-men are in sight, these are taken down.

The question not infrequently comes to the supervising surgeon as to whether the body of an officer shall be interred in some special place or be placed in a casket and sent to the rear. Frequently the field hospital is unable to do more than inter the body and mark the place so that friends coming after can remove the remains. In cases of that kind, the clothes are saturated with carbolic acid, and this in some way preserves the body from immediate decay, so that it can be disinterred, inside of a few weeks, without being much changed.

The medical corps is becoming rapidly mobilized in the military sense. The firing-line surgeons are being changed and shifted here and there, so as to command the very best services possible. A number of men past 50 years have been assigned to the hospitals in this section, and their services are particularly valuable, because of the strong common sense which enables them to determine the questions that come up, above redtapism. One of these questions is, whether a given wounded man will bear transportation or will he die in a very short time. If death is impending, the instructions are, to place him in the best circumstances, and, if the wound is particularly serious, to make such adjustments and to provide for careful watching. The field hospital may be four or five miles away; so, although the transportation is made by motors, in fairly good condition, the question of whether the man will die or be further injured by this trip must be settled at once. While the telephone is available for instruction, the judgment of the medical man must determine the matter at once.

Among the wounded there are, occasionally, officers who come from distinguished families, and, while they are to be treated practically the same as the soldiers, every failure to give them all the attention required is likely to be brought up in the future. Thus, a lieutenant colonel had his arm blown off at the axilla. The blood-vessels had been tied, but the hemorrhage was so severe and the prostration so great that the question of his transportation was a serious one. The field hospital was in danger and arrangements had been made for a sudden removal back, if the emergency occurred. The head surgeon was appealed to, and finally the officer was taken to a ruined farmhouse, in the charge of two nurses, and kept there until he died a day or so later. Prompt inquiry was made as to what attention he received and who was responsible for the details of his care.

The soldiers who have been in the field a few months are growing impatient at the desultory work they are doing and are beginning to clamor for an advance. The officers join them, and the commanding general has quite a task to keep down the feeling that is growing that one great supreme effort should be made, at any sacrifice, and thus end the conflict.

The censorship is being relaxed, and, yet, the locations of the different troops and the deaths at the different conflicts are suppressed. The war is becoming a business and every day the means and methods of conducting it are becoming more and more perfected. The telephone and the motor cars are keeping us in close touch with the enemy in front of us, but the work of others on our side is more or less unknown. Moving up and down, as I do, I hear nothing but a constant roar of artillery; there is hardly an hour of the day in which one cannot hear the distant rumbling of heavy guns, even in bad weather.

The arrival of large trains of ammunition always seems an indication that some big event is about to take place—and then comes the end. It is understood that the absence of ammunition has prevented any great forward movement up to the present, yet, every day, the lines are growing closer and closer. The leave of absence is being restricted and officers are going over the front lines every day, evidently to determine questions for future conflict.

The controversy at home, over the spirit rations supplied to the soldiers, is the subject of considerable comment. Nearly all the regiments and officers in the section that I am attached to refuse to accept the spirit ration and declare that coffee is far more valuable. The sentiment prevails that the beer- and spirit-barons who have the goods to sell to the government are the real active agents in opposing all withdrawal of spirit rations. In the hospital service little or no spirits are used. The opinions of practical men are, that the reaction following its use is far more serious than the good claimed for it, whatever the occasions. At headquarters, among the officers, light wine and coffee are used, but no stronger spirits.

All the officers and surgeons are greatly pleased with the improved diet, in the form of soups that are served to the men. Probably in no other war was there such perfected dietary system, methods of preparation, and ease of distribution as at present.

It is certain that the troops along this line are in the very best condition for long and arduous work, which undoubtedly will come very soon.

"BRITON."

ANOTHER REMEDY FOR SCIATICA

I have read with interest and pleasure the reports of various methods of treating sciatica, as advocated by readers of CLINICAL MEDICINE. I want to suggest a method of treatment given me by my father, who graduated from the University of Michigan in 1854. He used this remedy for years, and with invariable success. Following his advice, I have used it myself ever since I began practice, and have found it effective, not only in sciatica, but also in other forms of neuritis. So far as I can remember, this remedy has not failed me once in 25 years; also, it acts just as nicely in the chronic type of sciatica as it does in the acute form, although a little more persistence is required when the case is chronic. How it cures, and why it cures, I cannot explain.

This remedy is ammonium chloride. I give it in 10- to 20-grain doses, three or four times a day, following it in every instance with at least half a glass of water.

O. F. BURROUGHS.

Plainwell, Mich.

A CASE OF PARALYSIS OF THE BLADDER

On March 4, at 11:40 o'clock in the evening, I delivered a young woman, 26 years of age, of her first child. She had been in labor approximately twenty hours, when I was given permission to use instruments, and at 11:40 p. m. a 12-pound baby girl, apparently in good health, was born. I say now, apparently, for it died on its second day from malæna neonatorum, the condition also known as apoplexy intestinalis neonatorum.

On Saturday, March 6, at about 3:00 p. m., I was notified that the child was having bloody stools. Having some emetine hydrochloride (Abbott) in ampules at the office, I took these along. I administered one injection, although I recognized that the child had lost too much blood to recover. In fact, it did pass away within half an hour afterward.

Now to the point. During all this time, the mother, as I was told, voided very little urine, although I personally know that she did pass a little on the second day, but not very much. So, on Saturday evening, March 6, I catheterized her for the first time since delivery and secured 7 pints of urine. She tried several times after that to void urine herself, but even strong pressure failed to expel any urine. So, I catheterized her twice a day, thinking and hoping that each day would bring a restoration of function.

On the third day following the first day of catheterization, the urine became very ammoniacal, whereupon I prescribed hexamethylenetetramine in 5-grain doses. I also gave her a mixture consisting of 6 drams fluid extract of peach-leaves, 4 drams corn-silk, and syrup of ginger to make 4 ounces; a teaspoonful to be taken every four hours, with a glass of water. In addition to that, I gave her arbutin tablets, one to be taken every two hours. I later stopped the hexamethylenetetramine and gave her sodium-bicarbonate tablets, with a glass of water.

Even though the patient was up and walking around, she still was unable to void urine. I then became alarmed, because at no time had I had a patient whose control of the bladder did not return within four or five days following delivery, and here was one who had gone thus far eighteen days.

On the evening of the eighteenth day, after previously having consulted several other physicians, I was advised by one to make an injection of glycerin into the bladder. I did this, but the woman was unable to bear the glycerin in the bladder more than six hours, as it caused too much of a burning and painful sensation. Consequently I had to catheterize. Subsequently, that same evening, I was advised to try pituitrin. So, I gave one

ampule, or 1 Cc., of pituitrin, but it brought no response, and she had to be catheterized again later.

The next day I repeated the pituitrin, double the dose, administering 2 Cc. at one dose, and then, after twenty minutes, for the first time in nineteen days the patient was able to void her urine naturally. I wish to add that certainly I felt a great deal of satisfaction and relief to see the woman able to urinate naturally. She has been able to do so ever since.

This occurrence of paralysis of the bladder resulted, in the first place, from the pressure exerted by the child upon the bladder and its surrounding tissues, causing the same to become edematous, and, secondly, the bladder-muscles lost their tonicity, by reason of the overdistention when I catheterized the first time and drew the 7 pints of urine; the normal capacity of the bladder being from 6 to 9, although as much as 24 ounces can be retained.

I may here state that I have used pituitrin a number of times as an oxytocic, but this is the first time that I have used it as a genito-urinary tonic.

WILLIAM F. SCHAARE.

Chicago, Ill.

CHROMIUM SULPHATE IN SCIATICA

About ten years ago, Doctor Kolipinski, of Washington, published an article on chromium sulphate, lauding it as almost a panacea for a great many conditions. This article caused quite a sensation in medical circles, and our pharmacists manufactured and sold large quantities of chromium-sulphate tablets. I fell in line with the rest of my neighbor doctors and used these tablets for everything for which they had been recommended, with some very nice results, and some utter failures. During this time, however, I noticed that chromium sulphate had its best effects on certain of my neurotic cases.

My first experience with it in sciatica was about seven years ago. I had been treating the most severe case that I had ever seen of this ailment, using everything I knew of or could read about, internally and externally—tonics, anodynes, poultices, blisters, and almost the lethal dose of morphine intramuscularly at every visit—all with no noticeable result. One night, as I left, entirely discouraged, not knowing what to try next, I poured out a bunch of chromium-sulphate tablets, 4-grain, with the main idea of making my escape. After two or three days, a messenger came in, asking for "some more of the green tablets," stating that the patient had been easy ever since I left these with him.

After this experience, I used chromium sulphate in every case of the kind, and scarcely ever have a failure in sciatica, lumbago, neuralgia of the femoral nerve, recurrent neuralgias from old injuries of the spinal column, and even in Pott's disease. I have also observed that no relief is obtained in case of inflammatory rheumatism or any other true rheumatic condition.

Many make the mistake of giving too small doses. If I use chromium sulphate, I give from 32 to 40 grains daily. Sixteen grains will give little or no results. I have not observed any untoward results from 40 grains daily, except sometimes the patient complains of a feeling of heat in the skin. When I observe this symptom I reduce the dose or stop the drug until it is needed again for the pain, should it return.

I should like to know if others are getting similar results with chromium sulphate in this sort of work. I could give many case reports if desired.

B. M. ARMSTRONG.

Ben Lomond, Ark.

HELPING LADY NICOTINE

Dr. A. P. Reed, in the May issue of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, takes me severely to task for neglecting to walk roughshod over the prostrate form of Lady Nicotine. He believes me reprehensible in not pushing the old lady's face a little deeper into the mud of disrepute—instead of standing her on her feet, brushing off her clothes, turning an attentive, sympathetic ear to her story, and then sending her on her way rejoicing.

I regret that Doctor Reed feels this dereliction of mine, but I carry no brief against tobacco. Neither am I an advocate of its use. I use it; I also wear No. 7 shoes and a 6 7-8 hat. But it does not necessarily follow that these things are as well adapted to others as they are to me.

I know tobacco to be a baneful, noxious weed, chuckful of poison. And, yet, it may have a limited field of usefulness. For instance: the hellish lot of millions of poor European fools who, notwithstanding ostensible mental qualifications, haven't intelligence sufficient to realize that they are being exploited for commercial gain, undoubtedly is rendered more bearable because of the nicotizing influence of tobacco.

I am quite certain that, were their tricky, cunning, scheming capitalistic and militaristic masters to refuse to furnish them the palliative weed, these brainless ones would go mad in shrieking droves. (Perhaps it might be a good thing were it so, but, we are discussing the subject from a medical and not from a philosophical standpoint.)

I know that smoking assists peristalsis; that it soothes nerves irritated by hard reading, study or work; that a very limited indulgence is relatively harmless.

Yet, tobacco is a poison, the sale of which to growing children should constitute a penal offense. In excess of two or three cigars between dinner and bedtime, it causes me insomnia, tachycardia, and extreme restlessness. That's one reason why I am such a mild and moderate smoker.

But, as I said before, I wear No. 7 shoes, and I have no brief, either, for or against tobacco. I gave Lady Nicotine a gentleman's chance and stated both sides of her question as fairly as I knew how—merely as an individual.

EDWIN F. BOWERS.

New York City.

CURING HAY-FEVER

The hay-fever patient will soon be knocking at our doors again. His name is legion. Heretofore he has been a dread as well as an embarrassment. Can we really do anything for him now? It is the burden of this short article to answer affirmatively.

The treatment to be presented is based upon the proposition that hay-fever is a symptom-complex owing to a double infection: first, by pollen-toxin; second, by bacterial invasion. The underlying theory of treatment is that of establishing an immunity to both. The reason for claiming that this can be done is the fact that I have done it. I have failed to do it, too, in some instances, but only in cases where the patient either could not or would not carry out the treatment prescribed.

Two years ago, I began treating hay-fever patients with hypodermics of pollen-toxin, made from Spanish-needle, ragweed, and golden-rod; this toxin being extracted by the cold-brine process, the details of which have appeared previously in this publication. The results have been so satisfactory to myself, and to my patients, as to make me feel justified in giving such publicity to the treatment as I may be able to do, to the end that other physicians might also take up this idea, and help develop it to its highest point of efficiency. There is no secrecy about it. I am not posing as a discoverer or assuming any airs of proprietorship. Any physician having ordinary laboratory-equipment and a disposition to do hard, painstaking work can prepare this pollen-extract.

The dose of this preparation varies from 1-100 Cc. to 1 Cc., and it is repeated from once a week to once a day, according to the exigencies of the case. Any patient who can be brought to the point of taking as much as 1-2 Cc., without there occurring local reaction, is very likely to find himself immune to hay-fever. Treatments had best be begun six weeks or more before the time of the expected attack of the malady. The extract produces no reaction in persons who never have had hay-fever. Those having bacterial infection of the respiratory tract should be given the proper bacterin, in connection with the pollen-extract.

A few clinical cases will serve to illustrate, both the method and the results of the treatment.

Case 1. Mrs. B., age 48. Hay fever for past seventeen years. Lasts from August 17 until December. So severe as to confine her to bed part of the time. Preventive treatment began July 15, when, after spraying the site of injection with ethyl chloride, I gave a hypodermic injection of pollen-extract, 0.1 Cc. No reaction. Two days later, doubled the dose. No reaction. After three days, doubled the second dose. Slight redness at site of injection after twelve hours. Subsided in three days, when a dose of same size was given. Dose not increased, until it failed to produce local reaction. Dosage gradually increased, until, on the 17th of August, she was taking 0.4 Cc. Hay-fever did not appear. Treatments discontinued.

On September 5, patient got caught in rainstorm and immediately began to exhibit all the symptoms of hay-fever, with a marked croupiness added. Microscopic examination of nasal discharges showed the presence of pneumococci, staphylococci, and micrococci catarrhalis. A corresponding stock bacterin was assembled and a dose administered simultaneously with 0.4 Cc. of pollen-extract. After twenty-four hours, there was but very little relief, and 0.5 Cc. of pollen-extract was given hypodermatically, although the previous injection had produced considerable local reaction. Relief was almost instantaneous. The last dose was then repeated, together with the bacterin, every three days, until five doses were taken. No return of hay-fever

symptoms. The last five hypodermics may have been unnecessary, but, manifestly, they did no harm.

Case 2. Mrs. H., age 51. Hay-fever for twenty-four years. Begins in June, lasts until January. Eyes so sensitive to light during that time as to make reading an impossibility. Many resorts had been visited, with indifferent success. Asthmatic for several years past; uricacidemia, which was corrected before treatment was begun. Patient had come a long distance and wanted treatment pushed actively. She was possessed of little confidence, and I promised her nothing, except that I should do my best for her.

The first dose of 0.01 Cc. produced no reaction, so, the dosage was rapidly increased, in spite of severe local reactions. Several times, large doses brought on very marked aggravations of all her symptoms, but they would subside after a few hours, when another large dose was given. Treatment was begun September 5 and discontinued September 19, at which time the patient was free from hay-fever symptoms and returned home. There has been no return. In a recent letter, the woman declares that this summer she is going to fill Carthage with hay-fever patients of her personal selection.

Case 3. Miss B., age 24, professional nurse. Hyperesthetic rhinitis of eighteen months' duration. No discoverable abnormality in nose. Had had much local treatment at the hands of nose-and-throat specialists, with but temporary relief. Colorless nasal discharge, in which no bacteria were found. General health good. Began treatment with minimum dosage, gradually working up to 0.3 Cc. in six weeks. Complete relief, which has continued for almost a year.

Case 4. Mr. M., farmer, age 55. Hay-fever with asthma for five years. Entirely incapacitated during two months of each year. Unable to walk even a block or two, on account of dyspnea. No complications. Initial dose, 0.1 Cc., gradually increased every third day. Relief after five treatments, when he assumed his regular duties. No relapse after eight months.

Cases 5 and 6. Both are initial attacks. Both cases of Spanish-needle pollen infection; seemingly at least. One is a lady; the other a middle-aged gentleman. Both were infected early in September. Both cases were severe. Both had temperature above 100 degrees. The lady required two doses of pollen-extract, 0.1 Cc., while the gentleman needed but one. Both were relieved after a few hours. Neither had a relapse.

Now I will record my unsatisfactory and failure cases, as follows:

Case 1. Miss H., age 35. Hay-fever the past fifteen years, beginning August 15 and lasting throughout the season. Lives in neighboring village. Unwilling to have full examination. Took five treatments in an irregular way. Could see no effect at all from the treatment. Wanted a heroic dose. Unfortunately, I gave it to her. Within an hour, she was so asthmatic that she was unable to ride home on the street-car. Within five hours, her eyes were swollen shut; bullæ covered her body, and were almost big enough to "hang one's hat upon." The hands swelled. There was general muscular stiffness, especially about the joints, which were inclined to redden. Heart and pulse unaffected. All these symptoms disappeared within twenty-four hours, but the patient took no more treatment.

Case 2. Mr. B., age 45. Traveling salesman. Unable to take treatment, except on each Sunday. In midst of a severe attack. First injection of the minimum dose relieved him completely for two days, but he could not return for treatment, on account of his business (which, by the way, took him over long drives in a section of the country teeming with Spanish-needle), until his week was up. Next treatment failed to relieve him so phenomenally. Third dose gave much relief, but his arm became very red and swollen. The dose was too large. Should have been smaller and repeated more frequently. Fourth dose accomplished little besides aggravating the condition of his arm. Patient had an enlarged turbinate, which he was not in position to have remedied. Treatment discontinued.

Case 3. Mr. M., age 60. Hay-fever severely for many years. Usually began August 14. On August 7, took preventive dose of 0.1 Cc. Four hours afterward, a severe attack of hay-fever seized him, and an outburst of wheals added insult to injury. No more hay-fever extract for him!

Case 4. Mrs. M., age 50. Hay-fever seventeen years. Asthmatic accompaniment. Pollen-extract, 0.1 Cc., brought on a violent attack of hay-fever and asthma, although her regular attack was not due for almost a month. Symptoms all subsided after twelve hours. A week later, 0.01 Cc. failed to react. Patient unable to take treatment with any sort of regularity. Hay-fever developed about the last of August—over two weeks late. First time in seventeen years that the attack came later than August 15.

A dose of the pollen-extract would keep her symptomless for two days after its administration, but the patient was so situated that she could not take treatment that often. Discontinued.

Case 5. This gentleman was to pay only if the treatment was a success. (A policy quickly abandoned by me, however.) He was kept absolutely free from hay-fever by twice-a-week hypodermics of pollen-extract, until a week before frost, when he stopped coming for treatment. Has not been in the office since.

This is my complete list of socalled failures, so far as I am able to recall them at the present time. I could extend my list, of cures, greatly.

The conclusion is, that this pollen-extract is, or appears to be, effective. In justice to your hay-fever friends, why not give it a thorough and impartial tryout?

How long will this immunity to hay-fever last? Will patients have to take this treatment every year, in order to escape an attack? I do not know. It will take time and experience to determine that.

Is the treatment harmless? In intelligent hands, yes. In this paper, I am telling positively my worst experience with it. Last summer, a physician gave a patient 1 1-2 Cc. in one hypodermic dose, by mistake. The patient, in an hour, had nausea and vomiting, violent sneezing, hoarseness, asthma, flushed face, and swelling of face and hands. All of which soon wore off, and the patient went automobiling a few hours after the overdosing.

Does the pollen-extract keep well? In the dilutions, yes, if not subjected to a temperature above 100° F., but the mass is likely to spoil in the making. Many of my "batches" I have found to be inert, when I thought them about ready for use. After getting the extract made, be sure to test it out in every possible way, before administering it to patients.

Can the average general practitioner employ this treatment successfully? He certainly can, if he will prepare himself for it and will work at it hard enough. A case-record must be made out completely in every instance, and a record of the dosage must be kept accurately. But, then, should not one do that same in every kind of a case?

E. J. BURCH.

Carthage, Mo.

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[Doctor Burch's remedy is of the same general character as Dunbar's "pollantin," which has been on the market for several years, and has proven quite effective. Unfortunately, we have no specific for hay-fever as yet, and we doubt if the remedy proposed by the doctor will prove to be one. We shall still require remedies and measures looking to the removal of local sources of irritation, correction of systemic dyscrasias—especially acidemia, relief of local congestion, and the like. But the report given is interesting and suggestive and warrants further investigation.—ED.]

GO TO PAGOSA SPRINGS FOR THAT VACATION

In the June number of CLINICAL MEDICINE you ask for suggestions as to how the doctor may spend his vacation. Here is the answer. Come to Pagosa Springs, in southwestern Colorado! Let me tell you why. In the first place, we have the largest and, I think, the best hot spring on earth. The spring has a temperature of 156° F., and medicinally is very similar to the waters at Carlsbad, except that our water is even stronger.

Nor is this our only attraction. We have mountains and streams, beautiful as Switzerland; plenty of trout for the fishermen; and after the middle of August anyone who likes to hunt will find grouse here in abundance. We are only a short distance from Mesa Verda, the National Park of the Cliff Dwellers. This is a place in which anyone interested in the history of the first real Americans will find delight.

Pagosa Springs is not a place for a man who is just looking for comfort, and wants all the delights of civilization; but for any real *live* man, who loves God's fresh air and the grandeur of mountain scenery and wants to get into touch with nature at her best, far from the roar and rattle of city streets, this is surely the place.

Come to Pagosa Springs. Come here now and you will come again. You can reach us by way of Denver, Pueblo or Colorado Springs over the Denver and Rio Grande Railroad.

A. J. NOSSAMAN.

Pagosa Springs, Colo.

THE CONTROL OF CANCER

Of all the problems yet remaining for solution by medical science, that of cancer is by all odds the furthest reaching, and of most serious import to mankind at large. Cancer

is a terrible disease. It not only slays its tens of thousands, but slays them in a particularly horrible fashion, so that I suppose it is dreaded—and justly dreaded—more than any other form of disease and death that flesh is heir to. Moreover, it would seem to be the one pathologic condition which has steadily refused, and up to the present moment continues to refuse, to yield any single iota of trustworthy information concerning itself to modern research, in spite of the persistent, systematic effort directed toward the task from every angle of attack. We really know nothing definite about its etiology, or even about its pathology, except as to end-pathology.

This being the case, we can neither prevent nor cure cancer, in the same sense, or with the same certainty, that we can prevent and cure infectious diseases, for example. Yet, even in the unsatisfactory state of our knowledge on the subject, it would be untrue to say that we are utterly without means of controlling its occurrence and its course, and nothing short of criminal to stand idly by, in supine inactivity, while this terrible scourge wreaks its harvest of suffering and death. The very fact that we cannot yet definitely prevent or cure, so far from furnishing ground for inaction, makes an extra demand upon us that we apply, with additional energy and diligence, the limited knowledge that we do possess to the control and mitigation of the evil.

There are a few practical points that we know about cancer. The one point that stands out conspicuously above all others in our limited knowledge, is that the only hope of relief lies in early diagnosis and extirpation. Upon this all-important axiom we must continually harp, both in our own practice and in our admonition to the public. Eternal vigilance is the price of safety. We and they must not, cannot, dally. Whatever else we do, or do not do, in our attack upon the cancer problem, this is for the present our practical duty to ourselves and our clients.

This being recognized and vigorously carried out, there is another important duty resting upon the medical fraternity, namely, to promote and disseminate by every available means all the research and observation and data, experimental and clinical, that modern facilities and modern fertility affords. To this end, the American Society for the Control of Cancer is conducting a praiseworthy, unremitting propaganda, in which it deserves the support of every medical journal, and every other agency of publicity in the medical world.

At its May meeting, the Medical Society of the County of New York, with the cooperation of the American Society for the Control of Cancer, devoted an entire section of its program to the discussion of this momentous subject. Such a course cannot fail to be productive of an immense amount of good. After all, the real propagators of all medical campaigns are the men in the field, the practitioners. Only through them can the American Society for the Control of Cancer effectively spread its propaganda, and achieve its purposes. And the best way to reach the practitioners is through their local organizations. We most heartily commend the example of the New York County Society to the imitation of all local medical organizations. The American Society for the Control of Cancer will be only too happy to cooperate with any medical society in a step of this kind; and a wide-open discussion of the subject of cancer, in all of its aspects, will do more than anything else to awaken a lively, practical interest in this fearful plague, which calls loudly enough, God knows, for intelligent interest and action.

CORRECTION

Dr. E. H. Sholl, Birmingham, Alabama, writes us that an error was made in his article published on page 576, June number of CLINICAL MEDICINE. The dose of mercuric chloride should have been 1-16 grain every two hours, instead of 1-12 grain, as printed. Please look up his article and make necessary correction.

CURING DRUG HABITS

I enjoyed Doctor Waugh's excellent article on drug habits, published in the April number of CLINICAL MEDICINE. However, years of experience in the treatment of these cases of habituation have convinced me that a more gradual withdrawal of the drug, as the needs of the patient may determine, is better than to cut off the narcotic too suddenly, The withdrawal discomforts are insignificant, and the patient does not know when he has entirely ceased the use of the drug. Under the eliminant-tonic treatment, he eats naturally, gains in weight, and sleeps well.

The general practitioner is unsuccessful in treating these cases because he cannot give every patient the individual care and time required.

C. E. YOUNG.

Columbia, S. C.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, *A. M., M. D.*

"WHERE ignorance is bliss 'tis folly to be wise;" but how often is this bliss painful to those upon whom it is pitilessly inflicted. Many must be the instances in which the physician is influenced unduly by the sapient and unequivocal assertions of lay patients as to the causes and effects of certain conditions. They have experienced a strange sensation or undergone the discomforts of a certain ailment, and forthwith the doctor is thoroughly enlightened as to the cause, the condition present, and what "I believe would be the best thing in the world for me." To escape from such a philosophic recital is impossible without being insulting or rude, and the patient medical man must receive this enlightening bit of information as though it were the goddess of wisdom herself to whom he is indebted for such learning.

Whether from habitual listening to these wearisome tales or whether from a lack of ambition to get at the ground facts of the case in hand, too many physicians have yielded to the easy way of allowing a patient to diagnose his own case or at least to give too much credence to his more or less remarkable statements. In time, one might be led to the condition of apathy as regards investigation, in which a certain doctor was, who, when asked concerning a patient whose history he was reciting, "if there was any atrophy of the liver," replied: "No, I guess not; he said he didn't have any." This perhaps is somewhat overdrawn, but we all know of truthful incidents almost as absurd. But doubtless this patient, if of the stamp of hundreds whom we run across, was thoroughly capable, in his own estimation, of judging whether or not he was afflicted with that obscure condition.

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No less positive is the interested relative or friend who comes into your office, to ask the cause of the death of the former patient, and then proceeds with a continuous and lengthy dissertation on the "reason it all happened," leading you with word-pictures, "fearfully and wonderfully made," from the beginning "inflymation" which "orter bin checked" to the more dread stages of "cancer, ulciration and conjestion." Horrible progress of disease, more horribly elucidated!

With somewhat more polish and elegance of diction, but with equally positive knowledge (?), there frequently appear statements, not alone in the secular press, but in medical journals as well, which are set forth with the utmost confidence as to the correctness of their publication as though there were no possible condition to prove the contrary. For instance, recently I read, in a medical journal, an account of a tropical expedition of military troops who, through officers and press, testified that "the surprising success with which they had met was in great part due to the moderation, amounting to almost total abstinence, with which they had indulged in alcoholic beverages."

This may have been a great influence for success, but may there not have been other circumstances favorable to the outcome, especially food, favorable winds, and remarkable mental inspiration and determination?

There is nothing that happens because of one condition or influence alone; the same dose of drug administered in the same way does not produce identical results in two different individuals, because of personal differences. Hence, we may not justly attribute the opposing results to the faulty administration, for instance, in one of the cases merely because that idea is uppermost in our mind. This is a fault that should be overcome, namely, jumping at conclusions as to the influence of a certain fact because of its prominence in our interest. We do not mean to encourage cynicism, but let one consider the various phases and conditions bearing upon a subject before passing judgment upon its merits or accepting as unconditionally true any statement that may be made regarding it.

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The real object of education is, to give children resources that will endure as long as

life; that time will ameliorate, not destroy; occupation that will render sickness tolerable, solitude pleasant, age venerable, life more dignified and useful, and death less terrible. The early instruction imbibed from a parent's life has the strongest influence in forming the future character. Before the mind is mature enough to think for itself, we look to those whom nature has constituted our guardians to correct and sanction our opinions. In this way, the parental authority gains a hold upon the minds of children that can never be annihilated. And fortunate, indeed, would it be if the result always were the formation of a noble and manly character. The contemplation of the period of childhood—the earliest springtime of human life—is replete with the most tender interest.

We should remember that the system of the child is capable of constant modification; hence, it is our duty, as well as in our power, in a great degree, to impart, both mentally and physically, that standard of health so essential to the happiness of the child. Of all the acts of folly and cruelty of which parental blindness can be guilty, there is none more to be lamented than that which, from the pride of display or even more the generous desire for improvement, induces anyone to press upon infancy the task fitted for youth or to demand from youth the wisdom of manhood. It is rending and scattering the blossoms in order to reach the fruit, which, if obtained, is immature, unnatural, and, therefore, unpleasant; it is the conduct of an Egyptian taskmaster demanding a work without material which forms it—an arraigning of the wisdom and providence of God, who, in rendering man the most perfect of His creatures, has, yet, evidently made his progress the slowest toward the attainment of his powers.

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That indolence must be conquered and industry excited in children there is no denying. Can the recitation of the most difficult subjects or intense study at ten years ofage, the power of playing difficult music at sight by fingers not half-grown, or any of the wonders we see and hear so much of, repay a blooming girl for the roses that are vanished, the breath that is shortened, the appetite that is fled, the spine that is curved, the sense of joyful existence which once danced in her eyes, vibrated through her nerves and was heard in every thrilling accent?

While the energy of the vital system is uninjured and its manifestations in the various organs are in due harmony throughout with the state of the structures with which they are associated, all the operations of the body are duly and steadily performed. This is the condition which may be termed health. But, as soon as the mental powers are overtaxed, a change takes place throughout the whole system, and disease supervenes.

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At any time of life, excessive and continued mental exertion is hurtful, but in infancy and early youth, when the structure of the brain still is immature and delicate, permanent injury is more easily produced by injudicious treatment than at any subsequent period. In this respect, the analogy is complete between the brain and the other parts of the body, as is exemplified in the injurious effects of premature exercise of the bones and muscles. Scrofulous and rickety children are the most usual sufferers in this way. They generally are remarkable for large heads, great precocity of understanding, and small, delicate bodies. But, in such instances, the great size of the brain and the acuteness of the mind are the results of morbid growth, and even with the best management the child passes the first years of its life constantly on the brink of active disease.

Instead, however, of trying to repress its mental activity, as they should, the fond parents, misled by the promise of genius, too often excite it still further by unceasing cultivation and the never-failing stimulus of praise; and finding its progress, for a time, equal to their warmest wishes, they look forward with ecstasy to the day when its talent will break forth and shed a luster on their name. But, in exact proportion as the picture becomes brighter to their fancy, the probability of its becoming realized becomes less; for, the brain, worn out by premature exertion, either becomes diseased or loses its tone, leaving the mental powers feeble and depressed for the remainder of life. The expected prodigy thus, in the end, is easily outstripped in the social race by many whose dull outset promised him an easy victory.

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To him who takes for his guide the necessities of the constitution, it will be obvious that the modes of treatment commonly resorted to should, in such cases, be reversed; and that, instead of straining to the utmost the already irritable powers of the precocious child, leaving his dull competitors to ripen at leisure, a systematic attempt ought to be made, from early infancy, to rouse to action the languid faculties of the latter, while no pains should be spared to moderate and give

tone to the activity of the former. But, instead of this, the prematurely intelligent child generally is sent to school and tasked with lessons at an unusually early age; while the healthy but more backward boy, who requires to be stimulated, is kept at home in idleness merely on account of his backwardness. A double error is here committed, and the consequences to the active-minded boy not infrequently are the permanent loss both of health and of his envied superiority of intellect.

Many of these precocious overworked children die early, when but six or eight years of age, but manifest to the last a maturity of understanding, which only increases the agony of separation. Their minds, like some of the fairest flowers, no sooner are blown than blasted. Others grow up to manhood, but with feeble bodies and disordered nervous systems, which subject them to hypochondriasis, neurasthenia, hysteria, and all the protean forms of nervous disease. Others of the class of early prodigies exhibit in manhood but small mental powers and are the mere passive instruments of those who in early life were accounted far their inferiors.

As a warning to parents not to force education too soon or too fast, their dire results may be truly profitable both to parents and children and a benefit to the cause of education; but, as an example to be followed, it assuredly cannot be too strongly or too loudly condemned.

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By disinfection, I mean the destruction of the infecting power of infectious material. The object of disinfection is, to destroy infectious material of all kind, wherever it may be found, and thus to restrict the prevalence of infectious disease. The power of a given chemical agent to destroy disease-germs depends upon several conditions, as follows: the kind of germ; the presence or absence of spores; the nature and quantity of associated material; the number of the noxious microbes; the time of exposure; the temperature; and the degree of dilution.

Nascent oxygen is a very potent disinfecting agent. Hydrogen peroxide comes under the oxidizing disinfectants. Potassium permanganate, chlorine, iodine, and chlorinated lime are other oxidizing disinfectants. Alkalis and certain acids also are used as disinfectants. Among the metallic salts, mercuric chloride is the strongest disinfectant, but it is very poisonous. Copper- and silver-salts also are used for this purpose. Among the coal-tar products, carbolic acid, kresol and creolin are the most popular ones; creolin, however, is a more potent germicide than is carbolic acid, while kresol is more potent than either, especially for spores.

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Disinfectants are also antiseptics. By an antiseptic, I mean an agent which prevents septic decomposition by preventing the development of microorganisms which cause it; and we extend the use of the term to the restraining influence exercised upon other microorganisms of the same class, including the pathologic bacteria or germs of infectious diseases.

The difference between an antiseptic and a disinfectant is illustrated by such an agent as thymol, which stands above carbolic acid as an antiseptic and, yet, has one-fourth its value as a disinfectant. The difference is still more marked in the case of hydrogen peroxide, which is a very potent antiseptic, but has comparatively little germicide value.

In therapeutics, therefore, if we can restrain the development of a pathologic bacillus, we practically render it harmless or at least restrict its power for mischief within limits compatible with the safety of the patient.

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The fashion in disinfectants and antiseptics is constantly changing. It was not long ago that carbolic acid and iodoform were the principal agents used. Then someone said these were of no value, and they were discarded. Then bichloride of mercury led the race, but, owing to its poisonous properties, it is used but little now, and should not be used at all; it should be prohibited the same as poison flypaper. At present, tincture of iodine has the vogue; it is efficient, but dangerous.

There is one powerful disinfectant and antiseptic which is absolutely nonpoisonous, may be taken internally or applied externally without causing harmful results. This disinfectant is known as chinosol; however, it hasn't received the unqualified indorsement of the C. of P. & C. and, so, it is not employed to the extent it ought to be. We use it at Mudlavia wherever a disinfectant and antiseptic is required and always have found it pleasant, absolutely safe, and highly effective. It's good stuff, and I predict it will be used as extensively as carbolic acid once was used, and then some time, perhaps, some new agent will be introduced that will supplant this and all others in use today.

(*To be continued.*)

Among the Books

FITZWILLIAMS: "NURSING-MANUAL"

A Nursing-Manual for Nurses and Nursing Orderlies. By Donald C. L. Fitzwilliams, M. D. New York: Oxford University Press. 1914. Price $2.00.

The frankly avowed motive for the issuance of this manual lies in the need created by the war. It is designed to increase medical knowledge among nurses, orderlies, and Red Cross workers, so as to promote their efficiency and thereby help to relieve suffering among the war victims. First aid in the war naturally is dealt with very fully, in the hope that it will prove valuable to members of the Territorial Units of the Royal Army Medical Corps.

However, there is nothing in the book's aim that would detract from its value in times of peace or for nurses engaged in the ordinary prosecution of their profession. It is, in fact, a very complete and comprehensive manual of the entire subject of sick-nursing, including even the physiology and anatomy pertinent to the nurse's work—so complete and comprehensive that it might well serve as the sole textbook of a nurse's training course. Like most English books, it is written in clear, incisive style. Typographically, the makeup is excellent, the type is exceedingly plain and legible (with an eye, presumably, to its being read by camp-fires and tent-lamps), and the illustrations illuminating.

MACNAUGHTON-JONES: "AMBIDEXTERITY"

Ambidexterity, and Mental Culture. By H. Macnaughton-Jones, M. D. New York: The Rebman Company. 1914. Price 75 cents.

A strong plea for the teaching of ambidexterity. The author makes no attempt to solve the vexed problem of the origin of man's preference for using the right hand rather than the left. Nor does he seriously credit the prevalent theories regarding this fact. He is content to regard the phenomenon as arising from some accidental starting-point at which heredity, environment, and education began to give, and have continued to give, the preponderance of choice to the use of the right hand; and he argues that, if from infancy up these same forces are utilized to neutralize that choice, they will, in a large proportion of men and women, tend to equalize the use of both hands. He further asserts that a mass of collected evidence proves that the cultivation of ambidextrous exercises, both in art and writing, has a decided influence upon the mind of the growing child, and thus upon the formation of its character.

It is upon these premises that the author bases an earnest plea for a systematic training in the use of the two hands. He anticipates the time when it no longer will be rare, but the rule, to find men and women workers equally proficient in execution with both hands, and predicts that there will be a corresponding gain to the mental side of life. Those who are interested in learning his arguments are invited to procure and read this little book.

PAGE: "THE FORD CAR"

The Model T Ford Car: Its Construction, Operation and Repair. By Victor Pagé, M. E., Member, Society of Automobile Engineers, Author of "The Modern Gasoline Automobile," etc. New York: The Norman W. Henley Publishing Company. 1915. Price $1.00.

It is said that 900,000 Ford cars are in operation in this country. How many of these have been bought by physicians we are not able to say, but from personal knowledge we would think it likely that at least 75,000 Ford cars have, at some time, been operated by members of the medical profession. Probably 50,000 doctors are using this little car this very day. Inasmuch as nearly every doctor is also his own chauffeur and must keep his car running day and night, under all kinds of conditions, in all sorts of weather, in all sorts of places, and over all sorts of roads, it is certainly desirable that he know enough about the car so that he can keep it on the jump.

A little book like this one by Pagé should provide every doctor with just the information he needs. It describes all parts of the Ford automobile, and gives complete instructions for driving and maintenance. There are numerous charts and illustrations, and every possible mechanical problem and complication is made so plain, and the remedy for the "trouble" pointed out so clearly, that anyone who has read this book, or even has it in his satchel, should be prepared for every possible emergency.

WOOLLEY: "THE CLINICAL HISTORY"

The Clinical History in Outline. By Paul G. Woolley, M. D., Professor of Pathology, University of Cincinnati. St. Louis: The C. V. Mosby Company. 1914. Price $1.00.

The author, realizing the value of a thorough clinical history in forming the basis of educational measures that will teach a patient how to avoid recurrences of the disease from which he is suffering and the sequels of the disorder, as well as in arriving at a diagnosis and plan of treatment, has drawn up a systematic scheme by following which the student or practitioner may arrange the facts concerning his patient in an orderly way.

The book makes no attempt, of course, to take, automatically, a clinical history. It simply points the way to do it, and serves as a reminder of points to be considered. It includes a consideration of the patient's own complaint, the family history, the personal history, the history of the present illness, the physical examination, and special examinations. It also contains interpretative tables of common symptoms and of topographical forms of pain.

ADAMS: "CHRONIC LEG-ULCERS"

Treatment of Chronic Ulcers of the Leg. By Edward Adams, M. D. New York: The International Journal of Surgery. 1914. Price $1.00.

Presumably the contents of the book represent a series of articles that were formerly published in the pages of *The International Journal of Surgery*. The author explains that he has been impressed with the fact that too little attention has been paid to the diagnosis of chronic ulcers of the leg, and this book represents an attempt to rectify this defect in medical literature. He has considered, here, the essential diagnostic points of each of the more common varieties of leg-ulcer before he enters into their treatment. While the work to a large extent reflects the personal views and observations and experiences of the author, in his hospital and private practice, he has, he informs us, omitted nothing that might contribute to a successful management of the commonly met classes of cases.

PALOTAY'S CHEMICAL CHART

Palotay's Chemical Chart. Compiled from Standard Textbooks as a Condensed Reference Guide. By Dr. Jul. A. Palotay, Los Angeles, Cal. Published by the author. Price $2.50, net; postage 25 cents.

Doctor Palotay has performed a most valuable and practical, not to say arduous, piece of work. He has charted for us, in tabular form, all of the chemical elements, with all the data that pertain to them. On one side of the chart, there is an alphabetical list of the elements, against each of which are extended, in a series of columns, the atomic weight, valency, physical condition, electrochemical character, melting-point, boiling-point, specific gravity, history, occurrence, properties, preparation, tests, compounds, and uses; so that, by running one's finger along the chart, as it hangs upon the wall, one can get, at a glance, all this direct and collateral information about each element. In the lower part of this side of the chart, the elements are grouped in various classifications, as to their electrochemical behavior, radical relations, and other phases. On the reverse, there are presented a series of working-tables and formulæ for working out chemical problems. In fact, the chart is a schematic visualization of the entire subject-matter of chemistry and ought to prove especially valuable to teacher and student in the study of chemistry in lecture-room and laboratory.

MACDONALD: "PRACTICAL PRESCRIBER"

The Practitioner's Practical Prescriber and Epitome of Symptomatic Treatment. By D. M. MacDonald, M. D. New York: Oxford University Press. 1913. Price $1.50.

In this country, there are so many of these little pocket-dictionaries of treatment that they have almost become a drug on the market—at all events, greatly in excess of the real need for such publications, so that there has been created a false demand for them. In England, they are not nearly so numerous, and there still may be a legitimate field for them.

There really is a legitimate use for these booklets, of course. Frequently a physician feels the need of a quick and ready reference to the tables and formulas which they contain, and when he encounters such a need he "wants what he wants when he wants it." The best of doctors cannot carry all these details in his head, any more than an engineer can carry all his calculations and measurements. For such a purpose, such a pocket-formulary and prescriber is invaluable; and because of such a purpose it always will have a place among medical publications. Unfortunately, as intimated, it acquires a wrong and vicious use—that of a specious shortcut, a lazy substitute for genuine knowledge of therapeutics.

Doctor MacDonald's manual is as good as the majority of such books. It seems a little anachronous, though, that a manual of treatment of the twentieth century should confine itself to drug-therapy, without a word of physiologics or biologics, or even of hygiene. Some of our American epitomes do better than that.

"INTERNATIONAL CLINICS"

International Clinics: A Quarterly of Illustrated Clinical Lectures and Original Articles. Edited by Henry W. Cattell, A. M., M. D. Volume II. Twenty-fifth Series. 1915. Philadelphia and London: The J. B. Lippincott Company. Price $2.00.

The present volume is full of most timely and interesting things, having a very wide range. As is customery, however, there is one phase of medicine which holds the predominance of space and attention. In this instance, the leading subject is pediatrics. There is more upon this topic than any other two topics together, and it covers, by itself, a scope almost as large as the rest of the volume, ranging all the way from miliary tuberculosis to hyrospasm. For the rest, Brill has an interesting article on psychoanalysis. The sociologic side is represented by an article on human conservation, by J. Madison Taylor. But the most valuable section, to our mind, is the one on diagnosis and treatment, in which is reflected the progress of the times in a peculiarly comprehensive and illuminating fashion. We notice, by the way, that our own Dr. Alfred S. Burdick has contributed a presentation of the new phases of emetine-therapy. This feature—this reflection of current advance—is, after all, the raison-d'etre of the publication, and its most valuable function. And in the fulfilment of this function "International Clinics" occupies a place distinctively its own.

PARK AND WILLIAMS: "PATHOGENIC MICROORGANISMS"

Pathogenic Microorganisms: A Practical Manual for Students, Physicians, and Health Officers. By William H. Park, M. D., Director of Bureau of Laboratories, New York City; and Anna Williams, M. D., Assistant to the above. Fifth edition, enlarged and thoroughly revised. New York and Philadelphia: Lea & Febiger. 1914. Price $4.00.

If one wishes to realize the remarkable and rapid growth of the subject of Dr. Park's work, one only has to compare the size and content of the first edition, issued under the title of "Bacteriology in Medicine and Surgery," with that of the one now off the press. In its successive editions, the text has been broadened so as to include whatever additional knowledge and achievements had accrued, until it now represents the present state of evolution; and, while, still, its point of view has remained the same, which is, to demonstrate the relations of microorganisms to diseases of men, it has been thought wise to touch upon other aspects, such as the bacteria concerned in agriculture and some forms of fermentation.

Part I deals with general characteristics and methods. Part II includes the study of individual pathogenic organisms and their near relatives. Part III presents certain special aspects of the subject under the title of Applied Microbiology. The whole subject of immunity has been extensively revised in accordance with the latest concepts. There is a special chapter on complement-fixation, by M. P. Olmstead, and another on filtrable viruses. Altogether, this is an excellent work, by an excellent man, and we are not surprised at the statement in the preface that it "has come to be used in an ever-increasing degree by medical students."

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6108.—"Freezing Epithelioma with Carbon Dioxide." O. B., California, writes as follows: "I have just about conquered the growth referred to in my Query No. 6059—and which I now believe to be an epithelioma—by applying carbon-dioxide ice. I procured a Gooseman apparatus, which I find quite satisfactory, and since last August have made six applications, at intervals of about three or four weeks. The growth now has been reduced from an area of 1 x 1 3-4 inches to a spot about as large as the end of a lead-pencil, and one more application, I feel sure, will entirely heal this. I have maintained free elimination with saline laxatives, and at times gave echinacea, also; but it has been difficult to induce the patient to take medicines faithfully. Still, I have succeeded beyond my expectation. I feel that it is due you to report this progress, as my experience may be of help to others."

Certainly you are to be congratulated upon your success. We, too, have used carbon-dioxide snow in several cases, with excellent results; so, we have no doubt that the small lesion which still exists will disappear under one or two further applications.

We note that you have prescribed echinacea for internal use. Should a similar case come under your care, try echinacoid, alnuoid, and irisoid, in rather full doses, and in alternation with arsenous iodide, 1-64 grain, after meals.

QUERY 6109.—"Emetine in Pyorrhea." G., Indiana, desires information regarding the method of using emetine for pyorrhea. He wants to know whether he should inject the solution directly into the tissues with a sharp-pointed needle or simply fill the pus-pockets, using a blunt needle? Must any particular care beyond antisepsis be observed in the application? Can any harm to the general system or tissues of the mouth follow its use?

Several operators have had trouble, first from the use of too strong solutions of emetine hydrochloride, and, second, from injecting such solutions into healthy tissue above and through pus-pockets.

As you can readily understand, if a needle is inserted into a pus-bearing cavity and the point pushed through the protective wall into unaffected tissue, trouble is almost sure to result. Emetine solutions do not destroy or inhibit the growth of streptococci and staphylococci, and these bacteria, introduced by the needle into infiltrated tissue, would certainly propagate rapidly. It is for this reason that we advocate the use of emetine in association with antiseptics. This solution should be of the appropriate emetine-strength; namely, one-half of one percent (0.5 : 100, or, 1 : 200).

It has been found that 1-percent solutions of emetine hydrochloride may prove decidedly irritant when injected into the gums. For this reason, we strongly deprecate the dental use of extemporaneously prepared solutions of the alkaloid. Even for hypodermic administration, the liquid of the ampule is preferable to dissolving a tablet, although, if the operator is careful and uses reliable distilled water and a surgically clean syringe, the tablets may, of course, be thus employed.

As you will readily see, then, success in treating pyorrhea depends (1) upon the avoidance of too strong solutions, and (2) the injection of a sterile 1-2-percent solution of emetine into the pus-pockets themselves—never into the adjacent healthy tissues.

Before injecting, express the contents of the pockets by gentle massage with a swab saturated with a simple antiseptic solution, then have the mouth rinsed with solution of hydrogen dioxide, 1 part, and water, 3 parts. When frothing has ceased, dry the gums carefully and inject of the emetine-solution (1-2-percent strength) into each pocket, using a blunt or probe-pointed needle. Should in-

flammatory symptoms develop, cleanse the pockets with hydrogen dioxide, use borothyme or a similar antiseptic solution freely, and finally paint the entire area with diluted tincture of iodine.

Best results are obtained when, in addition, 1-2 grain of emetine is injected into the patient's arm every day for three or four days at the same time the emetine is being used in the mouth. We strongly advise this combined treatment in all severe cases.

Not to forget: *treat the patient.* Clean out his bowels; give him intestinal antiseptic; examine the urine, and give antacids, if indicated; put the digestion in first-class trim. All these expedients help greatly.

As to emetine, it is a wonderful remedy. Truly, "the half has never been told" regarding its possibilities.

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QUERY 6010.—"Typhoid Fever with Complicating Phlebitis." W. E. D., Iowa, sends a sample of urine for analysis, the patient being a man 38 years of age. This man was taken with a fever that continued for almost three weeks, the doctor first attending him considering it a case of typhoid fever. The correspondent saw him the third week, when he still had some fever, and also had quite a little pain in his left leg, extending from the hip to the knee; the leg felt numb much of the time when he walked; the veins, from the knee to the ankle, were varicosed. The man recovered somewhat and for a time felt as well as usual, except that the left leg was enlarged from the ankle to the hip. The calf of the leg is now 1 1-2 inches larger around than that of the right leg, and the leg still feels numb if used much. Ten days prior to this letter, the specific gravity of the urine was 1028, acidity was high; at the date of writing, the specific gravity was 1010, acidity being slightly reduced. Six days before this, he began to have fever again, his temperature fluctuating between 101° and 103° F. At the time of this report, the temperature was 100° F., the pulse, 70; with a morning-temperature of 103° and a slight chill. There is a little edema of the right ankle, but not as much as of the left one.

The doctor asks: "What keeps up this fever and causes the leg to enlarge?"

This patient undoubtedly has typhoid fever, since the Russo test applied to the urine specimen was markedly positive. This accounts for the continued temperature. It is quite possible, also, that there is phlebitis. Besides, the possibility of a preexistent nephritis must be borne in mind, casts being present in the urine; however, a small number of hyaline and granular casts often are observed in the urine of typhoid-patients. Since albumin is absent and only a moderate amount of casts present, while the amount of urine voided is in excess of normal and the specific gravity and total urea are high, it would seem that there is no organic renal disease, and it is probable that the congestion will disappear as the patient becomes convalescent.

Pyuria is fairly common in typhoid fever, especially during the second and fourth weeks, and may persist well into convalescence. Acute cystitis may be present, though usually the pus is of renal origin.

It is a little difficult to state whether this is an initial attack of typhoid fever or a relapse. We would take it that the patient was entering the second week of the disease, basing this opinion upon the statement that "six days ago he commenced to have a fever, running from 100 to 103 degrees."

As to the affected limb, you cannot do better than elevate it, and apply compresses wrung out of a carbolated solution of epsom salt. Crédé ointment might be rubbed in with advantage. We should put the man on nuclein, and give galactenzyme in full doses. Sulphocarbolates, of course.

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QUERY 6011.—"The Morphine-Habit." J. A. B., Indiana, wants to know if there is not some remedy that can be taken, say, every two or three hours or in some way that will cure a morphine-addict of his habit in an easy way.

Considerable has been printed in this journal, and this department, about effectual measures for the cure of drug-addiction; so, we must be brief.

The best way to overcome morphine-addiction is, to reduce gradually the amount of the narcotic, not allowing the patient to know how much he is receiving, at the same time pushing tonics and eliminants. Where the patient uses morphine hypodermically, the amount he is accustomed to take should be reduced at once by one-half or more; meanwhile it is absolutely essential that he be kept under the constant observation of a firm, thoroughly competent and kind nurse. When the narcotic is taken internally, a solution of it should be prepared, each teaspoonful containing one-half the accustomed dose. A simple bitter (gentian, quassoid, brucine) may be added to advantage.

At the beginning of the treatment, the patient is purged thoroughly. In addition, he is given hot salt-baths or spongings at frequent intervals; also some suitable tonic every three or four hours. Any peculiar complications which may arise are controlled with appropriate remedies.

As soon as one-fourth of the weaning-solution has been used up, plain water is added to refill the bottle, and the patient receives his usual dose of this until once more one-fourth of the bottleful has been taken, when water is again added to fill up. At this time, as will be observed, the patient is receiving just one-eighth the amount of drug he was used to consume; but he probably will be unaware of that fact. As the bitterness of the solution naturally decreases with the constant dilution with water, it becomes necessary to add something bitter, otherwise the patient may imagine to be suffering because of deprivation of his opiate. Under no circumstance should he be informed, for several days, that the drug actually has been withdrawn, after his original supply of morphine has been completely exhausted and he is taking merely bitter water.

This treatment can be carried out, in ordinary cases, without the slightest trouble, and, if thorough purging is instituted and maintained from the first, there will be few or no untoward symptoms requiring particular attention.

In addition to the course outlined, the patient, throughout the treatment, should be required to take atropine, strychnine, xanthoxyloid, and cactoid, in the tablet form. Such a course gives results similar to those obtained with the mixture employed in the Lambert-Towns treatment. Further details will be supplied to any physician, on request.

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QUERY 6012.—"Hydrogen-Sulphide Poisoning." E. H., Arizona, wishes to know whether hydrogen sulphide, inhaled as fumes, is cumulative in the system. Much of this gas is being used experimentally, in mine work in his neighborhood, and the men complain of lightheadedness and pains in the limbs for several days after. Would working where a small quantity of the gas is escaping have any deleterious effect?

Sulphureted hydrogen is strongly irritant. When inhaled in concentrated form, it may prove almost immediately fatal, the victim losing consciousness at once and respiration ceasing in less than a minute. In smaller quantities, the gas may cause unconsciousness lasting for several hours, occasional fatal coma ensuing, interrupted by convulsions of, sometimes, a very violent character. These symptoms are the consequence of the direct action of the sulphide on the medulla oblongata and the brain. Individuals exposed to diluted vapor of sulphureted hydrogen complain of local irritation (ocular, nasal, pharyngeal) and more or less pain and congestion of the conjunctiva, dryness and soreness of the buccal and laryngeal mucosa, and reflex increase in the secretion of tears, saliva, and mucus. Giddiness, dulness, headache (persistent and severe), and progressive loss of energy are complained of, these symptoms very often appearing some time after exposure to the poison.

Lehmann's experiments proved that death is due in part to edema of the lungs, 1 part of hydrosulphuric acid in 5000 parts of air proving sufficient to induce serious symptoms in man, while air containing 1 part of the gas in 2000 parts of air could be respired for only a short time, invariably giving rise to alarming symptoms. He states that 1 part of sulphurous acid in 1000 parts of air is sufficient to poison an adult in a very short time.

The poisonous effect of hydrogen sulphide is owing partly to its local irritant action, and partly to the direct effect it exerts upon the central nervous system. The changes in the blood occur during life only after inhalations of concentrated gas, although they may indicate exposure to more diluted vapor, the tissues in general tending to assume a green color comparatively soon after the victim has succumbed to sulphurous-acid poisoning.

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QUERY 6013.—"Cancerous Odors." O. G. C., Indiana, would like us to say what we consider the best preparation for overcoming the disagreeable odor from cancer of the womb.

A great many agents have been recommended to suppress the odor of cancerous lesions, but few of them prove very effective. However, thorough cleansing of the parts with dilute hydrogen dioxide, followed by a douche with the vaginal antiseptic powder (a level tablespoonful) dissolved in a quart of hot water, and finally the application of gauze strips or small wool and cotton tampons saturated with a solution of thuja and echinacea will be found to do good service.

Carcinoma of the uterus proves particularly rebellious to ordinary deodorizing measures. This writer has had success with a dilute solution of formaldehyde: formalin,

standard 30-percent solution, 1 part; water, 15 to 20 parts; but even stronger solutions may be applied with a swab direct to the cancerous area. After such treatment, discharge is materially lessened and the bad odor virtually disappears for several hours. Ichthyol and iodine have been employed for this purpose, but the combined hydrogen-dioxide and thuja and echinacea applications give the most satisfactory results in the majority of cases.

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QUERY 6014.—"Uterine Prolapse." W. S. W., Georgia, has under care a childless married woman (no miscarriages) who, since about six months ago has been suffering from prolapse of the uterus in the first degree, and who claims to have lifted a heavy weight last November during her menstrual period. Since then she has had considerable pain, and scanty somewhat pale menstrual flow, when previous to this she had no trouble. There also is some leucorrhea at times. She complains of irritable bladder when menstruating. Our correspondent asks as to what is the best method to keep the uterus in place after it has been replaced, and he also wants to know whether we would suggest a tampon with astringents, and as to what we think of pessaries and what is the best kind of the latter in his case.

Each case of uterine prolapse must be studied individually, especially when it occurs suddenly in an otherwise healthy individual, as in this instance. The Doctor has failed to give the age of this patient and says nothing about her muscular condition. On general principles, however, we should advise replacement of the organ and careful tamponage; later, a rubber ring pessary may be employed. It must be borne in mind, however, that sudden prolapse really is a rare condition, especially in a nulliparous woman, unless some pelvic tumor exists, which causes displacement of the organ. When such an accident does occur, it usually is due to sudden extraordinary muscular effort or to a fall from a height; and it is quite likely that under such circumstances the uterosacral ligaments are ruptured. In chronic prolapse, the ligaments merely are elongated.

If the ligaments are ruptured, you will have to use a cup or ring pessary, with an external support. This pessary should be removed when the woman retires and whenever she resumes the recumbent position.

You will find a very complete and instructive chapter on the treatment of prolapse of the womb in Ashton's "Gynecology." In this connection, let us call your attention to the answer to Query 6104, in our June issue.

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QUERY 6015.—"Emetine in Rheumatoid Arthritis." W. H. E., Wisconsin, has a patient who is unable to walk on account of rheumatoid arthritis. He has been advised to give injections of emetine, on the assumption that pyorrhea is the underlying cause of the joint trouble. Our advice is requested.

At the present time, we are not yet able to express a positive opinion as to the likelihood of emetine proving efficacious in rheumatoid arthritis, or arthritis deformans. The opinion prevails among many able men that this form of arthritis has its root in some primary infection elsewhere in the body; and this theory is supported by such men as Billings and Rosenow, who look upon pyorrhea as one of the causes, although not the only one.

While emetine might prove destructive of any amebas present and thus do good in cases like this one, it hardly is reasonable to assume that the drug could restore normal conditions in diseased joints. Nevertheless, it is worth trying, although one should not overlook the systemic conditions playing an important part in this disease. You will find a somewhat exhaustive consideration of rheumatoid arthritis in the Query Department of the December, 1913, issue of CLINICAL MEDICINE. Should you decide to administer emetine in this particular case, we trust you will keep careful notes and report your observations, be they favorable or otherwise, for the benefit of the profession at large. Of one thing you may be quite sure, and that is, that the conjoined local and systemic use of emetine will always materially benefit and usually cure your cases of pyorrhea.

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QUERY 6016.—"Fecal Impaction." M. E. B., Michigan, writes: "A patient of mine just died from fecal impaction at the hepatic flexure. I looked through your literature and saw the advice to use a kerosene enema. I did not dare use it, as I thought it was too strong undiluted."

It is quite possible that the fatal termination might have been prevented by the free use of kerosene, as suggested; and you may rest assured, doctor, that any procedure recommended by those in charge of CLINICAL MEDICINE has been employed many times in personal practice and not only proven safe, but efficacious.

Not very long ago, the present writer was called into consultation to see a physician

supposed to be dying from cancer, either of the colon or the liver. Careful palpation led to the diagnosis of fecal impaction at the hepatic flexure. The physicians who had been in charge were skeptical, but this writer himself felt convinced that he was correct. So, after the bowel was washed out with warm soapsuds, the patient was placed in the knee-chest position and a pint of kerosene introduced through a rectal tube, followed by gentle massage of the colon, especially of the hepatic area, with the patient lying upon his right side. Then, after the lapse of fifteen minutes, 2 quarts more of soapsuds was introduced, and this brought away a large quantity of hard fecal masses; still, the main mass did not seem to be affected. Thereupon the patient was made to drink several ounces of liquid petrolatum, or paraffin-oil (note, *not* kerosene), while a second pint of kerosene was introduced into the colon, followed by more soap-water. Fifteen minutes later we were in possession of the "cancer"—a fecal mass of stony hardness, with a corkscrew channel through the center. Recovery was rapid.

Bear in mind that no harmful amount of kerosene is absorbed within a reasonable time, and you need not hesitate to introduce it under any circumstances. Of course, the kerosene should not be left in the bowel for longer than half an hour. Such dissolvent action as the oil possesses will be exerted in that time.

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QUERY 6017.—"Profuse sweating." M. C. B., Oregon, submits, for diagnosis and treatment, a case of profuse sweating. The patient is a boy of 9 years, weighs 62 pounds, is fairly well nourished, and is of nervous temperament. The Doctor writes: "As soon as the boy goes to sleep he begins to sweat profusely, so that at times it is necessary to change his night-clothes; and these attacks occur two or three times a week. This sweating came on after he had had an attack of pneumonia, when he was nine months of age and has continued, with intermission, ever since. He had chicken-pox at two years and bronchopneumonia at five. Family history is good. Result of the examination: temperature, 98.6° F.; pulse rate, 76; hemoglobin blood-content, 85 percent; heart, normal; lungs, normal, with no dulness; tonsils, enlarged; adenoids present; also a few enlarged lymphatic glands in the neck; abdominal organs, negative finding, except that the belly is distended by gases; urine, normal. He is slightly constipated, is troubled somewhat with headaches, and wears spectacles."

Idiopathic general hyperidrosis nearly always is associated with debility, and, as a rule, is an evidence of some underlying (often unrecognized) pathologic condition, such as tuberculosis, malaria or an autotoxicosis; however, in some families there obtains a tendency to excessive perspiratory secretion. The fact, in this instance, that the patient is constipated and has some ocular disorder points to a nervous origin.

It must be admitted that in a considerable proportion of cases very little can be accomplished in the moderate periodic forms of generalized sweating. In excessive periodic hyperidrosis (usually insidious in developing), the outcome depends upon recognition of the cause. Stelwagon regards the prognosis less favorable in paroxysmal sweating than in the continuous type.

The reflexes, both deep and superficial, should be tested; the von Pirquet reaction also may be tested; in addition, we suggest that you have an examination made of specimen of this boy's urine and a blood smear.

On general principles, we should be inclined to administer the arsenates of iron, quinine, and strychnine, also lecithin, and the mineral acids in rather full doses. Sulphur laxative might also be tried, adding, should the laxative action be too marked, a little gallic or tannic acid; this laxative, though, preferably in alternation with the arsenates and mineral acids—say, week and week about.

The writer has secured good results from a combination of ergot, atropine, and quinine ferrocyanide. Before the patient goes to bed, his skin should be sponged with some mildly astringent solution.

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QUERY 6018.—"Myocarditis?" W. H. R., New York, presents the case of a plumber, age 41 years, doing no hard work at present, who complains of great bodily weakness, inability to force himself to do work, either physical or mental, brain tiring easily and unable to concentrate; legs and arms go to sleep easily, especially on left side; is sleepy at all times, often directly after eating. Appetite very good, bowels regular, sleeps well at night. At beginning of treatment had pain over stomach; no pain whatever at present.

He has been a heavy beer drinker for twenty years. Liver slightly enlarged, urine

normal. Heart varies from 82 to 90 and pulse is soft and regular except after exercise. All heart sounds are weak; a slight scraping sound is heard at aortic valves, but best over transverse arch of aorta, and is not carried up into neck; no murmur over mitral orifice when at rest, after exercise a mitral regurgitant murmur is heard and pulse becomes irregular; no shortness of breath ordinarily. Blood pressure by auscultation method is systolic 93, diastolic 78, Tycos' instrument used.

Patient has stopped drinking entirely and has reduced coffee and smoking. Has been on strychnine, chologestin, iron, and arsenic, with nux vomica and cascara morning and night. For a time he took mercuric chloride and potassium iodide.

Appetite is now splendid, and bowels regular. Digitalin causes pain over heart and arch or aoria. No specific history. Blood is negative for malaria. Patient has lost twenty or more pounds since the beer was stopped and while under treatment. The blood pressure has never been higher than 108 systolic, even when on digitalis. Patient is now taking only strychnine, iron, and arsenic. Heart is hypertrophic, down some and to left.

We hesitate to venture a definite diagnosis. The fact that the patient has been a plumber for many years would lead us to think of the possibility of lead poisoning; as, moreover, he has been a somewhat heavy drinker, the probability of hepatic or renal disease and myocarditis is also strongly to be considered. A blood-study should be made, to exclude the possibility of pernicious anemia or other dyscrasia.

The heart sounds are not clear enough, apparently, to make a positive diagnosis as to the condition of the cardiac organ, and it is somewhat difficult to say whether there is anything more than mitral regurgitation to deal with. Of course, this is serious enough, if there is associated loss of compensation, but this does not seem to be the case, since no dropsy is reported. However, it is not unlikely that there is beginning degeneration, or myocarditis. On the whole, it is doubtful if the reported condition of the heart will explain the patient's extreme bodily weakness.

You say the urine is normal. What is the output of urea. Is there any indican or skatol? What is the degree of acidity?

The blood pressure is very low, but it is doubtful whether it would be desirable to try to increase it materially. You might with advantage place the patient upon cactoid, alternating every three hours with sparteine, digitalin or adrenalin. Before each meal we would give some good digestive; also berberine hydrochloride and strychnine sulphate, and an hour after dinner and supper one chionanthoid compound tablet.

Have the patient take a salt sponge-bath at least twice a week, and (in the knee-chest position) flush the bowel at similar intervals with decinormal salt solution at body temperature. Rest in bed is indicated if there is myocarditis.

We would hardly like to exclude syphilis. A Wassermann test might prove informative. The patient should, of course, be dieted carefully, and a month in the pine-woods might prove beneficial. We need more details before volunteering further suggestions.